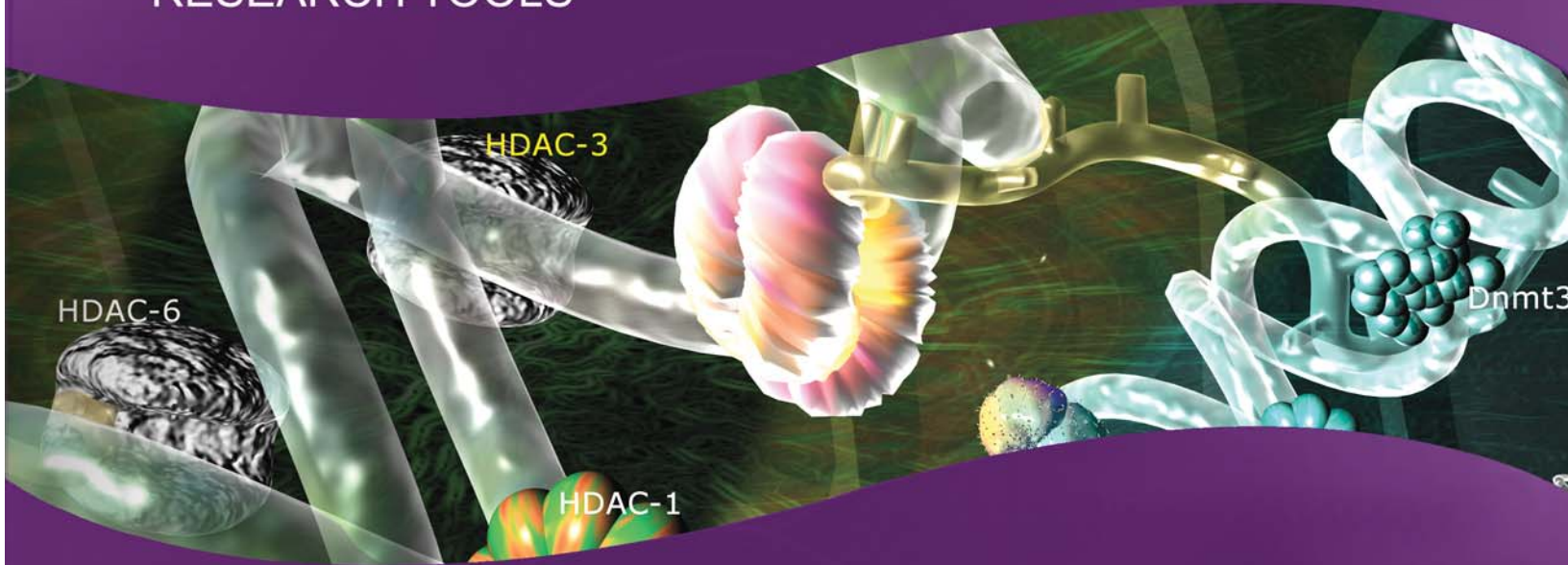


# DNA Methylation & Chromatin Remodeling

RESEARCH TOOLS



## Introduction

Surging interest in understanding the mechanisms of epigenetics is attracting researchers worldwide from a wide variety of scientific disciplines. Epigenetics is the study of the heritable changes in gene function that occur without changes in DNA sequence. It is becoming increasingly apparent that epigenetic phenomena are integral to both normal and aberrant gene regulation that are controlled by heritable but potentially reversible changes in DNA methylation and/or chromatin structure.

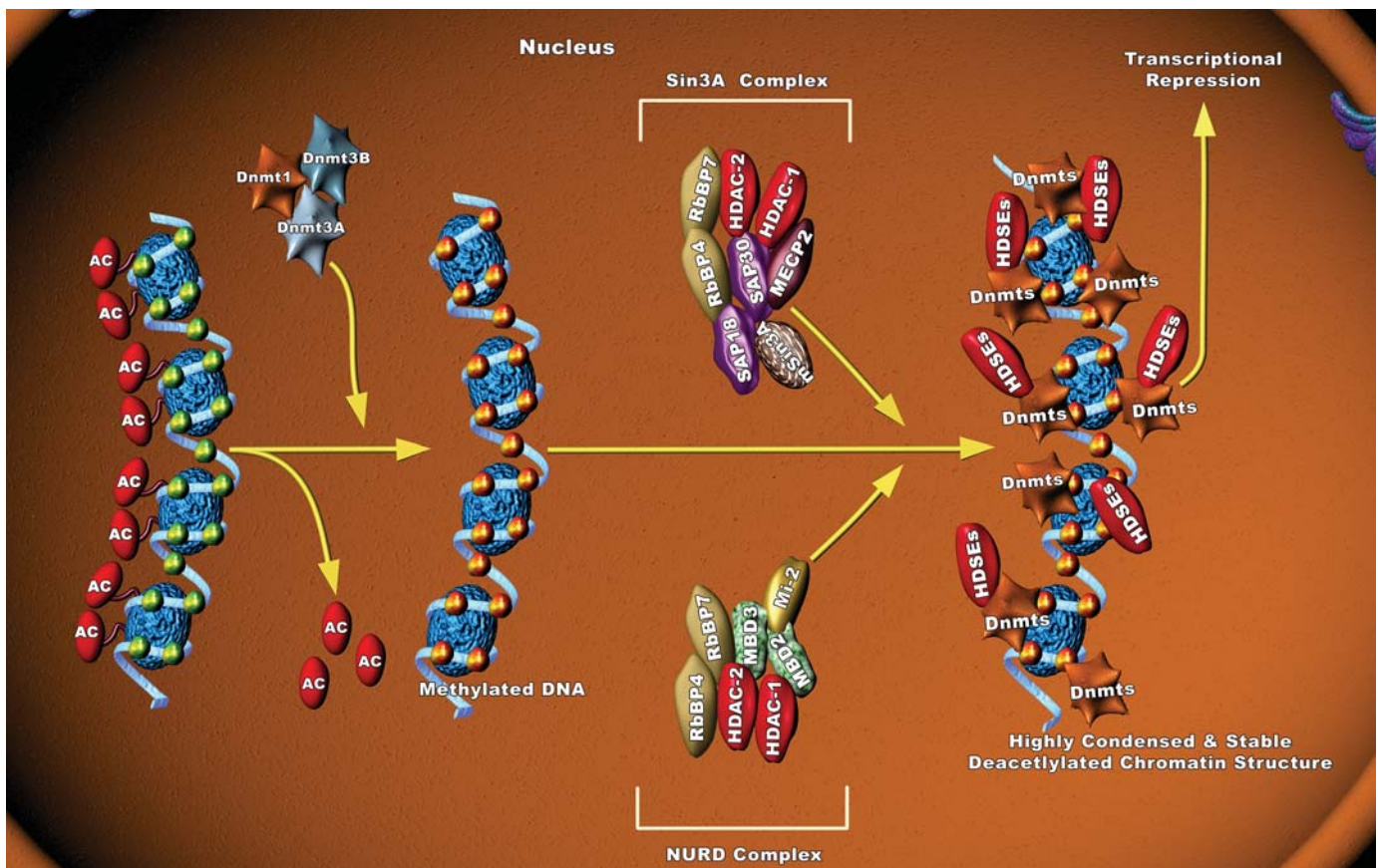
The most direct mechanism by which DNA methylation can interfere with transcription is to prevent the binding of basal transcriptional machinery or ubiquitous TFs (Transcription Factors) that require contact with cytosine (C) in the major groove of the double helix. Transcriptionally active chromatin is predominantly unmethylated and has high levels of acetylated histone tails. Most mammalian TFs have GC-rich binding sites and many have CpGs in their DNA recognition elements. Binding by several of these factors is impeded or abolished by methylation of CpG. Methylation at CpG dinucleotides is carried out by DNA methyltransferases Dnmt1, Dnmt3a and Dnmt3b, resulting in DNA with high levels of CpG methylation, but still containing predominantly acetylated histone tails.

CpG methylation induces histone deacetylation, chromatin remodeling and gene silencing through a transcription repressor complex that includes SMRT (Silencing Mediator of Retinoid and Thyroid Receptors), mSin3a, RbAp46/48 and the two histone deacetylases HDAC1 and HDAC2 formed around mSin3a. This complex is assembled by interaction of mSin3a with the methyl-binding protein MeCP2 and SAP18/30 (Sin3-Associated Polypeptides 18/30), which are found associated with large protein complexes such as the NURD complex (Methyl-CpG Binding Domain proteins: MBD2, MBD3). MeCP2 acts as a shuttle interlocking DNA methylation and core histone deacetylation in inducing gene silencing. This methyl-binding protein tethers the repression multiprotein complex that includes the corepressor protein, mSin3a, HDAC-1 and HDAC-2. The deacetylase activity, which accompanies the MeCP2-bound mSin3a, render the promoter of the gene inaccessible to TFs by deacetylating histones.

Histone proteins are thought to be the major carriers of epigenetic information. Histones form the nucleosomal complexes that make up the eukaryotic chromatin, which packages and organizes DNA in the nucleus. The nucleosome, the basic repeating subunit of chromatin, is composed of DNA coiled around an octamer of two molecules, each with four core histone proteins: H2A, H2B, H3 and H4. Each core histone is composed of a structured, three-helix domain called the "histone fold" and two unstructured tails. The N-terminal histone tails extend outward from the DNA to interact with the nuclear environment where they are the targets of multiple, diverse signaling pathways. Signal transduction pathways impinging on the N-terminal histone tails result in a number of post-translational modifications including acetylation, phosphorylation, poly(ADP-ribosylation), ubiquitination and methylation. These modifications play critical roles in regulating chromatin structure and gene expression.

To reverse a silenced status of a gene, demethylation takes place and an activating complex, which carries the capacity of acetylating histones H3 and H4, replaces the repression complex. This modification of core histones results in a chromatin structure which is accessible by TFs. Alternatively, the methyl-directed repression can be alleviated by a methylation-overriding effect that is exerted by a strong activation complex ultimately resulting in effective acetylation of histones H3 and H4. In addition to MBD, a TRD (Transcriptional Repressor Domain) overlaps with a region that interacts directly with the corepressor mSin3a. HDAC1 and HDAC-2 and chromatin-remodeling activities (Mi-2 and mSin3a) within these complexes result in alterations in chromatin structure, producing chromatin that is refractory to transcriptional activation. Recently, an MBD2-binding zinc finger protein (MIZF) has been identified that represses transcription by associating with MBD2 and a histone deacetylase complex.

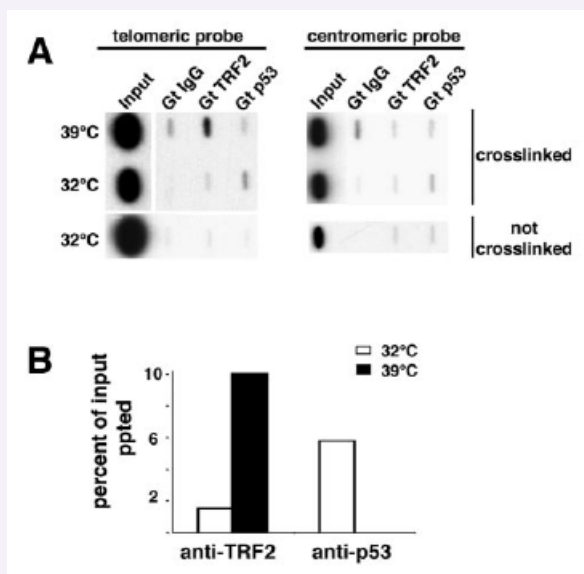
Epigenetic mechanisms such as DNA methylation, histone acetylation, and RNA interference, and their effects in gene activation and inactivation, are becoming increasingly understood as antibodies and other tools become available. IMGENEX offers a wide range of products including antibodies and RNA interference kits for epigenetic research.



## ChIP-Qualified Antibodies

The chromatin immunoprecipitation (ChIP) method is a powerful technique used to study protein-DNA complexes. The ChIP method allows detection of the interactions between proteins of interest and DNAs with known sequences *in vivo*. ChIP requires primary antibodies suitable for immunoprecipitation. Some of IMGENEX antibodies have been used in ChIP assays (see below).

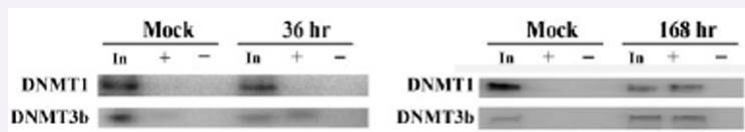
### ChIP assay using Anti-TRF2 polyclonal antibody (Cat.# IMG-148)



**Figure 1.** ChIP analysis. (A) Telomeric DNA was precipitated by antibodies against the telomeric binding protein TRF2 (IMG-148) but not by non-specific goat IgG. Immunoprecipitation requires formaldehyde cross-linking of proteins to DNA. p53 antibody was not from IMGENEX. (B) Quantitation of the data shown in panel A. was calculated as follows: Percent input precipitated (pptd) = [signal strength of telomeric DNA precipitated with the indicated specific antibody-background signal obtained with non-specific IgG]/input signal] x 100.

(Data courtesy of Dr. Dominique Broccoli. Razak et al. *Mol Cell Biol.* 24 (13): 5967-5977 (2004).

### ChIP assay using Anti-Dnmt1 (Cat.# IMG-261) and Anti-Dnmt3b (Cat.# IMG-184)

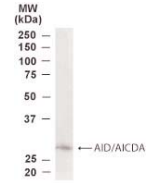


**Figure 2.** ChIP-PCR assay for repressive chromatin modifications on the PR promoter CpG island region at 36 and 168 hrs after ER $\alpha$  siRNA treatment. Antibodies against Dnmt1 and Dnmt3b were used in ChIP-PCR assay. After 168 hr of ER $\alpha$  siRNA treatment of MCF-7 cells, recruitment of Dnmt1 and Dnmt3b to the PR promoter was evident. (In: total input, (+) ER $\alpha$  siRNA, (-) without ER $\alpha$  siRNA.

(Data courtesy of Leu et al. *Cancer Research* 64: 8184-8192 (2004).

**AID/AICDA**

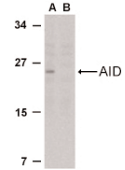
**Cat No** IMG-3383  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** Human Liver lysate  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]NVRWAKGRRETYLC[BLAST], from Internal of the protein sequence according to NP\_065712.



IMG-3383 (0.1µg/ml) staining of Human Liver lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**AID/AICDA**

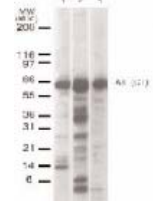
**Cat No** IMG-5410  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** Whole cell lysate from Ramos cells can be used as positive control.  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Human AID peptide



Western blot analysis of AID in Ramos whole cell lysate with anti-AID using IMG-5410 at 2 µg/ml in either the (A) absence or (B) presence of blocking peptide.

**AIF (CT)**

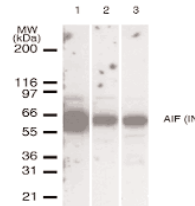
**Cat No** IMG-490  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human, Rat  
**App** WB  
**Pos Control** Human, mouse, or rat liver  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with synthetic peptides of human AIF.



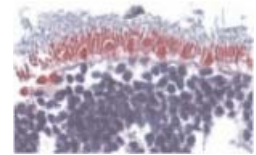
Detection of AIF (CT) in human (lane 1) mouse (lane 2) and rat (lane 3) heart using IMG-490 at 0.5 µg/ml.

**AIF (IN)**

**Cat No** IMG-303  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat  
**App** IHC (paraffin), WB  
**Pos Control** Human, mouse, or rat heart  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with synthetic peptides of human AIF.



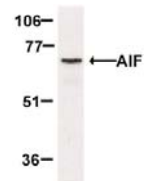
Detection of AIF (IN) in human (lane 1) mouse (lane 2) and rat (lane 3) heart using IMG-303 at 0.5 µg/ml.



IHC analysis of AIF in human retina using IMG-303 at 10 µg/ml.

**AIF (NT)**

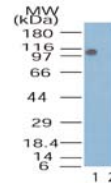
**Cat No** IMG-5636  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** IHC (paraffin), WB  
**Pos Control** K562 cell lysate  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Human AIF (NT) peptide



Western blot analysis of AIF in K562 cell lysate with AIF antibody using IMG-5636 at 1 µg/ml.

**Amine oxidase (flavin containing) domain 2/AOF2/LSD1**

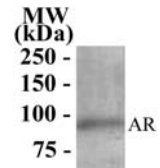
**Cat No** IMG-5842A  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Dog, Human, Mouse, Rat, Rhesus Monkey, Zebrafish  
**App** WB  
**Pos Control** Brain lysate  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** A portion of amino acids 100-150 of human LSD1 was used as the immunogen.



Western blot analysis of LSD1 in the 1) absence and 2) presence of immunizing peptide in human brain lysate using IMG-5842A at 0.5 ug/ml.

**Androgen Receptor**

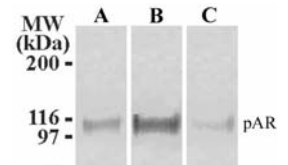
**Cat No** IMG-3238  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB, ELISA  
**Pos Control** human brain or heart  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence EVQLGLGRVYPRPPSC, from N Terminus of the protein sequence according to NP\_000035.



Staining of 35 µg of human brain lysate using IMG-3238 at 0.3 µg/ml. Primary incubation was 1 hour. Detected by chemiluminescence.

**Androgen Receptor (Phospho-Ser213/210)**

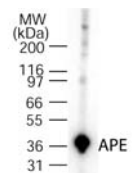
**Cat No** IMG-561  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** IGF-1 stimulated LNCaP  
**Clone name** 156C135.2  
**Size** 0.1 mg  
**Antigen** This antibody was developed against a synthetic peptide corresponding to amino acids 207-221 (GRAR-EAS\*GAPTSSKD) of human androgen receptor, containing the serine 213 phosphorylation site: GenBank Accession No. A39248. Note: S\* refers to phosphorylated serine in the peptide sequence.



LNCaP cells (passage number 38) were serum-starved for 2 days. After serum starvation, cells were (A) left untreated, (B) treated with 100 ug/ml IGF-1 for 4h, or (C) incubated with 20 um LY294002 for 30 min prior to treatment with 100 ug/ml IGF-1 for 4 h.

**APE**

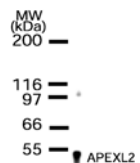
**Cat No** IMG-392  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa (Imgenex Cat. No. # 40161)  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against KLH-conjugated synthetic peptides corresponding to amino acids 36-52 and 216-232 of human APE.



Western blot analysis of APE in HeLa cell lysates using IMG-392 at a dilution of 2 ug/ml.

**APEXL2**

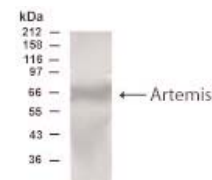
**Cat No** IMG-466  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was generated by immunizing rabbits with synthetic peptides of human APEXL2.



Western blot analysis of APEXL2 in HeLa cell lysates using IMG-466 at a dilution of 1:500.

## Artemis

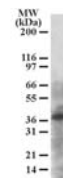
**Cat No** IMG-4114  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** A431 lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 677-692 [[BLAST]GESIAVKKRKCSLLDT[BLAST]] of human Artemis.



Western blot analysis of Artemis in human testis lysate using IMG-4114 at 1:250 dilution. Weak signal often seen due to low expression levels.

## ATF1

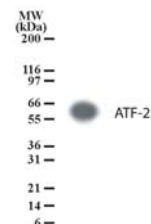
**Cat No** IMG-3017  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** A431  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]ELKTLKDLYSNKS[BLAST], from C Terminus of the protein sequence according to NP\_005162.



IMG-3017 staining (0.5 µg/ml) of A431 lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

## ATF2

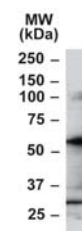
**Cat No** IMG-311  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** 293  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide containing amino acids 13-27.



Detection of ATF2 in 293 cell lysate using IMG-311 at 2 µg/ml.

## ATF2

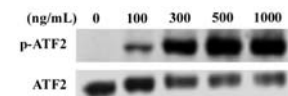
**Cat No** IMG-3435  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** 293  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]CIVMAPSSQSQPSGS[BLAST], from C Terminus of the protein sequence according to NP\_001871.



Western blot analysis of ATF2 in HeLa lysate using IMG-3435 at 2 µg/ml.

## ATF2 (Ser490/498)

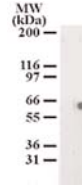
**Cat No** IMG-5040  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB, IHC (frozen)  
**Pos Control** human melanoma cells  
**Clone name:** N/A  
**Size** 0.1 mL  
**Antigen** A synthetic phosphopeptide corresponding to amino acids residues surrounding the human phospho Ser490/498 of ATF2 was used as immunogen. The antibody was purified by sequential chromatography on phospho- and non-phosphopeptide affinity columns.



Immunoblotting of human melanoma cells incubated with varying doses of the radiomimetic drug NCS.

**ATF2 (Thr71)**

**Cat No** IMG-350A  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** TNF-a treated HeLa (1 hr)  
**Clone name:** 103C411.2  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing mice with a synthetic peptide containing phosphorylated threonine at position 71 of human ATF-2.



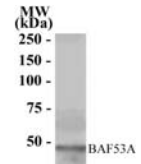
Detection of ATF-2 phosphorylation in HeLa cell lysate with anti-phospho ATF-2 mAb (Cat. #IMG-350). Lane A. Untreated cell lysate; Lane B. HeLa cells treated with TNF for 1 hr.

**BACH1**

**Cat No** IMG-4115  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** TNF-a treated HeLa (1 hr)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 1233-1249 [NFKPSPSKNKGMPGFK] of human BACH1.

**BAF53A**

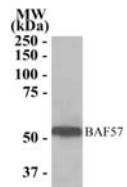
**Cat No** IMG-3067  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB, ELISA  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence YEEGGKQCVERKCP, from C Terminus of the protein sequence according to NP\_057272, NP\_004292.



IMG-3067 staining of HeLa lysate (RIPA buffer, 35 µg total protein per lane). Primary antibody (1 µg/ml) incubated for 1 hour. Detected by western blot using chemiluminescence.

**BAF57**

**Cat No** IMG-3093  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB, ELISA  
**Pos Control** HeLa or Jurkat  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]PPTDPIPEDEKKE[BLAST], from C Terminus of the protein sequence according to NP\_003070.



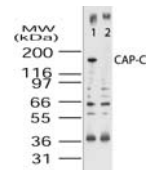
IMG-3093 staining of Jurkat lysate (RIPA buffer, 35 µg total protein per lane). Primary antibody (1 µg/ml) incubated for 1 hour. Detected by western blot using chemiluminescence.

**CAP-C**

**Cat No** IMG-5114A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa cell lysate (Cat. No. 40161)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** A synthetic peptide corresponding to amino acids 281-297 of human CAP-C. Genbank accession no. NP\_001002800.

## CAP-C

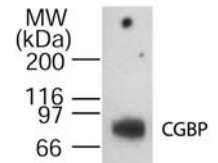
**Cat No** IMG-5115A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa cell lysate (Cat. No. 40161).  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** : A synthetic peptide corresponding amino acid residues 47-61 of human CAP-C. Genbank accession number: BAA73535.



Western blot analysis of CAP-c in HeLa cell lysate using IMG-5115A at 2 mg/ml dilution. Lane 1: Unabsorbed IMG-5115A, Lane 2: After absorption with immunizing peptide.

## CGBP

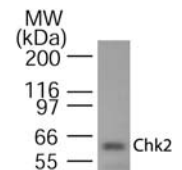
**Cat No** IMG-477  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB,  
**Pos Control** human spleen  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This polyclonal antibody was raised against a mixture of synthetic peptides containing 73-90 and 641-656 amino acids residues of human CGBP.



Western blot analysis of CGBP using IMG-477 at 1:1,000 dilution against 15 ug/lane of human spleen lysate. Immunoreactivity was determined using SuperSignal system (Pierce) and by exposing to the film for 15 minutes.

## Chk-2

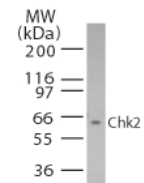
**Cat No** IMG-336  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** human spleen (Imgenex Cat. No. # 40109) or 293  
**Clone name:** 73C175.1.1  
**Size** 0.1 mg  
**Antigen** A synthetic peptide obtained from human Chk2 protein sequence was used as immunogen.



Western blot analysis of Chk2 in 293 cell lysate. A protein band of approximate molecular weight of 60-62 kDa is detected with IMG-336 at 2 ug/ml.

## Chk-2 (NT)

**Cat No** IMG-5443  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat  
**App** WB  
**Pos Control** Jurkat or K562 cell lysate can be used as positive control.  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Human Chk2 (NT) peptide



Western blot analysis of Chk2 in 293 cell lysate. A protein band of approximate molecular weight of 60-62 kDa is detected with IMG-336 at 2 ug/ml.

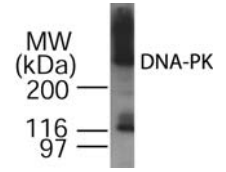
## CLLD8/SETDB2

**Cat No** IMG-3353  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** IF/ICC  
**Pos Control** human pancreas or testis  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]GEKNGDAKTFWME/[BLAST], from N Terminus of the protein sequence according to NP\_114121.



DNA-PK

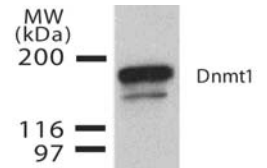
**Cat No** IMG-534  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human, Rat, Pufferfish  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was developed against a synthetic peptide corresponding to aa 4085-4096 of human DNA-PK. It is human, mouse, rat and hamster reactive, based on amino acid sequence.



Western blot analysis of DNA-PK in 15 µg of HeLa cell lysate using IMG-534 at 0.1 µg/ml.

Dnmt1

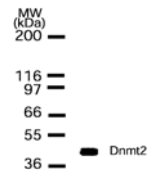
**Cat No** IMG-261  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB, IHC, IP, ChIP  
**Pos Control** human kidney (IHC) or mouse ES cells (WB)  
**Clone name** 60B1220.1  
**Size** 0.1 mg  
**Antigen** This antibody was raised against a synthetic peptide corresponding to amino acids residues 637-651 human Dnmt1 (Genbank Accession No. NP\_001370). It will cross react with mouse Dnmt1.



Western blot analysis for Dnmt1 using IMG-261 at 2 µg/ml against 10 µg of cell lysates of mouse ES cell.

Dnmt2

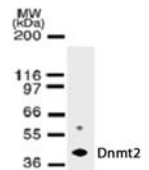
**Cat No** IMG-281  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** mouse testis  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was raised against synthetic peptides corresponding to mouse Dnmt2.



Western blot analysis for Dnmt2a using IMG-281 at 2 µg/ml dilution against 10 µg of mouse testes lysates. A protein band of approximate mol. wt. of 42 kDa is detected

Dnmt2

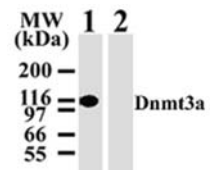
**Cat No** IMG-374  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** transfected cell lysate  
**Clone name** 102B1259.2  
**Size** 0.1 mg  
**Antigen** This antibody was raised against synthetic peptides corresponding to mouse Dnmt2.



Western blot analysis for Dnmt2 using IMG-374 at 2 µg/ml dilution against 15 µg of transfected cell lysate.

Dnmt3a

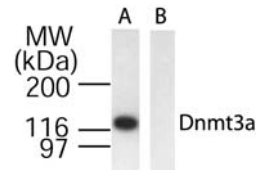
**Cat No** IMG-266A  
**Format** Purified, Biotinylated  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB, IHC  
**Pos Control** transfected cell lysate  
**Clone name** 64B814.1  
**Size** 0.1 mg  
**Antigen** This antibody was raised against bacteria expressed HIS-tag recombinant mouse Dnmt3a.



Western blot analysis for Dnmt3a using IMG-266 at 2 µg/ml against 10 µg of 293 cell lysate transfected with either mouse Dnmt3a (lane 1) or mouse Dnmt3b (lane 2).

## Dnmt3a

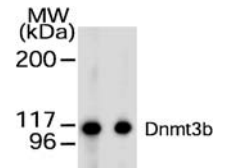
**Cat No** IMG-268A  
**Format** Purified, Biotinylated  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB, IHC, ChIP, IF/ICC  
**Pos Control** transfected cell lysate (WB), HeLa (ICC)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was raised against bacteria expressed HIS-tag recombinant mouse Dnmt3a. The epitope was found to lie near the C-terminus (a.a. 705-908) (product citation 5).



Western blot analysis for Dnmt3a using IMG-268 at 2 ug/ml against 10 ug of 293 cell lysate transfected with either mouse Dnmt3a (lane A) or mouse Dnmt3b (lane B).

## Dnmt3b

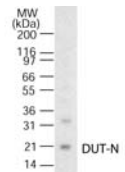
**Cat No** IMG-184  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB, IP, ChIP, ICC  
**Pos Control** P19 nuclear extract  
**Clone name** 52A1018  
**Size** 0.1 mg  
**Antigen** This antibody was raised against bacteria expressed HIS-tag recombinant mouse Dnmt3b. The antibody will also recognize human Dnmt3b (product citation 2).



Western blot analysis for Dnmt3b using IMG-184 at 2 ug/ml against 10 ug of cell lysates of 293 transfected with mouse Dnmt3a (lane 1) and Dnmt3b (lane 2). A protein band of approximate mol. wt. of 110 kDa is only detected in 293 cells transfected with mouse Dnmt3b cDNA.

## DUT-N

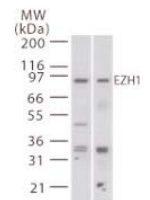
**Cat No** IMG-465  
**Format** Purified  
**Ab Type** pAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a mixture of KLH-conjugated synthetic peptides corresponding to amino acids 25-44 and 113-130 of human DUT-N.



Western blot detection of DUT-N in HeLa cell lysate using IMG-465 at a dilution of 1:1,000.

## EZH1

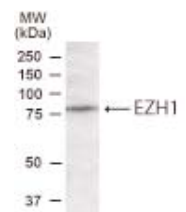
**Cat No** IMG-389  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** human or mouse spleen  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with synthetic peptides of human EZH1.



Western blot detection of EZH1 in mouse (lane 1) and human (lane 2) spleen lysate using IMG-389 at 2 ug/ml.

## EZH1

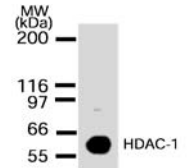
**Cat No** IMG-3538  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** MOLT-4 lysate  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]EIPNPPTSKCITY[BLAST], from the N Terminus of the protein sequence according to NP\_001982.



Western blot analysis of EZH1 in MOLT-4 lysate using IMG-3538 at 2 ug/ml.

**HDAC-1**

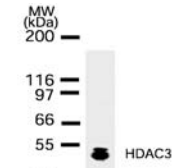
**Cat No** IMG-337  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** 293  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 1-5, 433-448 and 467-482 of human HDAC1 (Genbank Accession no. Q13547).



Western blot analysis of HDAC-1 in 293 cell lysate with IMG-337.

**HDAC-3**

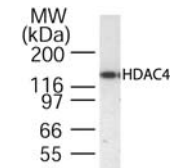
**Cat No** IMG-308  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** : This antibody was generated by immunizing rabbits with a synthetic peptide corresponding to amino acids 2-17 of human HDAC3.



Western blot analysis of HDAC-3 in HeLa cell lysate with anti-HDAC3 IMG-308.

**HDAC-4**

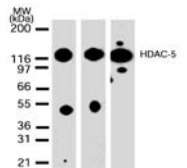
**Cat No** IMG-338  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** Jurkat or NIH 3T3  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide corresponding to amino acids 194-209 of human HDAC4.



Western blot analysis of HDAC-4 in Jurkat cell lysate with IMG-338.

**HDAC-5**

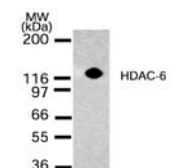
**Cat No** IMG-339  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** 293, Jurkat, or NIH3T3  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide corresponding to amino acids 572-587 of human HDAC5.



Western blot analysis of HDAC-5 in 293 (lane 1), Jurkat (lane 2) and NIH-3T3 (lane 3) cell lysate with IMG-339.

**HDAC-6**

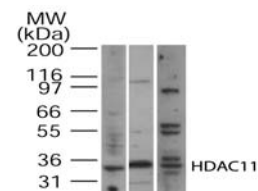
**Cat No** IMG-340  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** NIH3T3  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide corresponding to amino acids 1-16 of human HDAC6.



Western blot analysis of HDAC-6 in NIH-3T3 cell lysate with IMG-340.

## HDAC-11

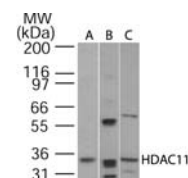
**Cat No** IMG-5026  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human, Rat  
**App** WB  
**Pos Control** human, mouse, or rat brain  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed by immunizing mice with a synthetic peptide of human HDAC11, corresponding to amino acids 238-251.



Western blot analysis of HDAC-11 in (A) human, (B) mouse and (C) rat brain tissue using IMG-5026 at 2 ug/ml.

## HDAC-11

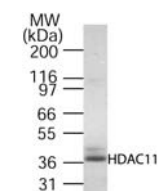
**Cat No** IMG-5027  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human, Rat  
**App** WB  
**Pos Control** human, mouse, or rat brain  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed by immunizing mice with a synthetic peptide of human HDAC11, corresponding to amino acids 60-78.



Western blot analysis of HDAC-11 in (A) human, (B) mouse and (C) rat brain tissue using IMG-5027 at 2 ug/ml.

## HDAC-11

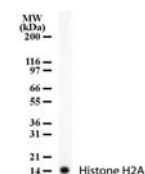
**Cat No** IMG-475  
**Format** Supernatant  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** human brain  
**Clone name:** 3702492  
**Size** 0.2 mL  
**Antigen** This antibody was developed by immunizing mice with a synthetic peptide of human HDAC11.



Western blot analysis of HDAC-11 in human brain tissue lysate with IMG-475 at 1:500 dilution.

## Histone H2A

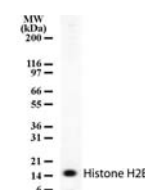
**Cat No** IMG-358  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat or PBMC  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a mixture of synthetic peptides containing amino acid residues 1-5 and 81-96 of human Histone H2A.



Western blot analysis of Histone H2A in human PBMC cell lysate with IMG-358.

## Histone H2B

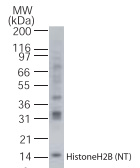
**Cat No** IMG-359  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat or PBMC  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide containing amino acid residues 111-125 of human Histone H2B.



Western blot analysis of Histone H2B in human PBMC cell lysate with IMG-359.

**Histone H2B (NT)**

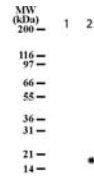
**Cat No** IMG-492  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** PBMC  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was generated by immunizing rabbits with synthetic peptides of human Histone-H2B.



Western blot analysis of Histone-H2B using IMG-492 at 1:500 against human PBMC lysate.

**Histone H3 (Ser28)/PHH3**

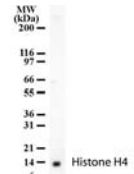
**Cat No** IMG-371  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** anti-Fas mAb treated Jurkat  
**Clone name** 117C826  
**Size** 0.1 mg  
**Antigen** A synthetic peptide containing phosphorylated serine at position 28 (CARKS\*APATGGVKK) of human Histone H3 was used as immunogen. The immunogen sequence (CARKS\*APATGGVKK) is conserved across mammalian and invertebrates, as well as plants.



Detection of Histone H3 phosphorylation in Jurkat cell lysate with anti-phospho-H3 mAb (Cat. #IMG-371). Lane A. Untreated Jurkat; Lane B. Anti-Fas antibody treated Jurkat

**Histone H4**

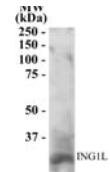
**Cat No** IMG-360  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat or PBMC  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide containing amino acid residues 15-30 of human Histone H4 (GAKRHRKVLDRNIQGI). This sequence is conserved across mammalian, invertebrate and plant species. An NCBI BLAST shows no cross-reactivity of this sequence with other known histones.



Western blot analysis of Histone H4 in human PBMC cell lysate with IMG-360.

**ING1L**

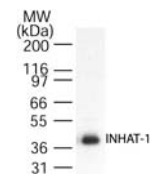
**Cat No** IMG-3036  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** HepG2  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence DKSTEKTKDRRSR, from C Terminus of the protein sequence according to NP\_001555.



IMG-3036 staining (3 µg/ml) of HepG2 lysate (RIPA buffer, 30 µg total protein per lane). Primary incubated for 12 hour. Detected by western blot using chemiluminescence.

**INHAT-1/TAF-1a/TAF-1b**

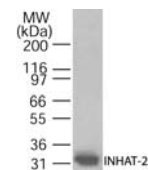
**Cat No** IMG-369  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was raised against synthetic peptides of amino acids 66-81 and 135-151 of human INHAT-1. Sequence homology is 100% in mouse and rat.



Western blot analysis of INHAT-1 using IMG-369 against Jurkat cell lysate.

## INHAT-2/pp32

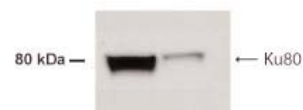
**Cat No** IMG-370  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was raised against synthetic peptides of amino acids 87-103 and 231-246 of human INHAT-2.



Western blot detection of INHAT-2 using IMG-370 at a 1:1000 dilution against 10 ug of HeLa cell lysate.

## Ku80

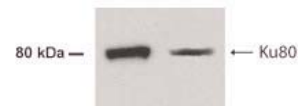
**Cat No** IMG-4174  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat, Hamster  
**App** WB  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 323-338 [FSKVDEEQMKYKSEGK] of the 80 kDa Ku80 protein.



Western blot analysis of Ku80 using IMG-4174 at 1:500 dilution on 50 ug of total lysates of A431 (lane 1) and AR42J (lane 2) cells.

## Ku80

**Cat No** IMG-4175  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat, Hamster  
**App** WB  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 419-440 [LVYVQLPFMEDLRQYMFSSLKN] of the 80 kDa Ku80 protein.



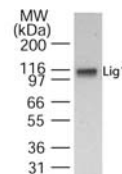
Western blot analysis of Ku80 in 50 ug of A431 (lane 1) and AR42J (lane 2) lysates using IMG-4175 at 1:500 dilution.

## Ku80

**Cat No** IMG-80232  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Monkey  
**App** IHC (paraffin)  
**Positive Control** Tonsil  
**Clone name** S10b1  
**Size** 0.1 mL  
**Antigen** BALB/C mice were injected with human placental extract (PSE1-PL).

## LIG1

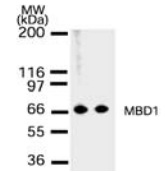
**Cat No** IMG-495  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a synthetic peptide containing amino acids 51-68 of human LIG1.



Western blot analysis of LIG1 in cell lysate from HeLa cells using IMG-495 at 1:1000 dilution.

**MBD1**

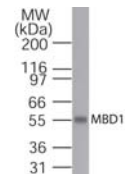
**Cat No** IMG-306  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** 100B272.1  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing mice with a synthetic peptide of human MBD1.



Western blot analysis of MBD1 in HeLa cell lysate at a dilution of 2 ug/ml (lane 1) and 1 ug/ml (lane 2). A protein band of approximate MW of 70 kDa is detected.

**MBD1**

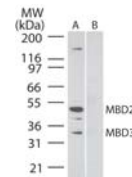
**Cat No** IMG-310  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 98-113 and 342-356 of human MBD1. It recognizes isoform 4, a 503 amino acid protein.



Western blot analysis of MBD1 in HeLa cell lysate with anti-MBD1 pcAb. A protein band with an approximate molecular weight of 55 kDa was detected.

**MBD2/3**

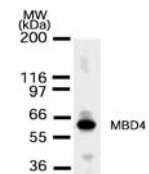
**Cat No** IMG-296  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** HeLa (nuclear fraction)  
**Clone name** 106B691  
**Size** 0.1 mg  
**Antigen** Amino acids 215-230 (CKAFMVTDEDIRKQEE) of human MBD3 protein were used as the immunogen.



Western blot analysis of MBD2 and MBD3 in HeLa cell lysate (nuclear fraction) in the A) absence and B) presence of immunizing peptide using IMG-296A at 2 ug/ml.

**MBD4**

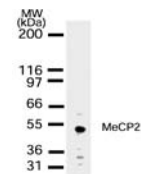
**Cat No** IMG-285  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HL60  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 268-282 and 337-352 of human MBD4.



Western blot analysis of MBD4 in HL60 cell lysate with anti-MBD4 pcAb (Cat. #. IMG-285. A protein band of approximate molecular weight of 64 kDa was detected.

**MeCP2**

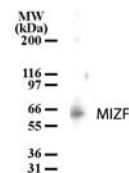
**Cat No** IMG-297A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a mixture of synthetic peptides corresponding to amino acids 11-25 and 181-195 of human MeCP2.



Western blot analysis of MeCP2 in HeLa cell lysate with anti-MeCP2 pcAb (Cat. #. IMG-297A). A protein band of approximate molecular weight of 53 kDa was detected.

## MIZF

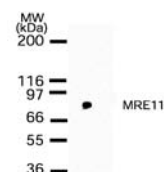
<b>Cat No</b> IMG-474
<b>Format</b> Sera
<b>Ab Type</b> pAb
<b>Host</b> Rabbit
<b>Reactivity</b> Human
<b>App</b> WB
<b>Pos Control</b> MOLT-4
<b>Clone name</b> N/A
<b>Size</b> 0.2 mL
<b>Antigen</b> This antibody was developed against a mixture of synthetic peptides corresponding to amino acid residues, 180-194, 331-346, and 371-388 of human MIZF.



Western blot analysis of MIZF on MOLT-4 cell lysate. Ten microgram of protein was loaded per lane of a mini gel. The antibody was used at 1:500 dilution.

## MRE11

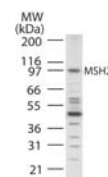
<b>Cat No</b> IMG-335
<b>Format</b> Purified
<b>Ab Type</b> pAb
<b>Host</b> Rabbit
<b>Reactivity</b> Human
<b>App</b> WB
<b>Pos Control</b> 293
<b>Clone name</b> N/A
<b>Size</b> 0.1 mg
<b>Antigen</b> A synthetic peptide of human MRE11 was used as immunogen.



Western blot analysis for MRE11 in 293 cells, 10 ug per lane. A protein band of approximate molecular weight of 81 kDa is detected.

## MSH2/MutS homolog 2/Mismatch Repair Protein

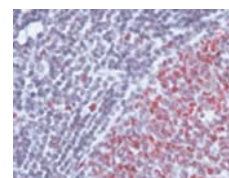
<b>Cat No</b> IMG-5341A
<b>Format</b> Purified
<b>Ab Type</b> pAb
<b>Host</b> Rabbit
<b>Reactivity</b> Human, Mouse
<b>App</b> WB
<b>Pos Control</b> HCT-116 cell lysate
<b>Clone name</b> N/A
<b>Size</b> 0.1 mg
<b>Antigen</b> A portion of amino acids 550-600 of human MSH2 was used as the immunogen.



Western blot analysis of MSH2 in HCT-116 using IMG-5341A at 2 ug/ml.

## MSH2/MutS homolog 2/Mismatch Repair Protein

<b>Cat No</b> IMG-80235
<b>Format</b> Tissue Culture Supernatant
<b>Ab Type</b> mAb
<b>Host</b> Mouse
<b>Reactivity</b> Human
<b>App</b> IHC (frozen), IHC (paraffin)
<b>Pos Control</b> Tonsil
<b>Clone name</b> 25D12
<b>Size</b> 0.5 mL
<b>Antigen</b> BALB/C mice were injected with recombinant human MSH2 protein.



IHC analysis of MSH2 formalin-fixed paraffin embedded human tonsil using IMG-80235.

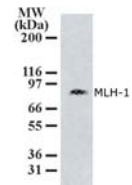
## MSH6

<b>Cat No</b> IMG-80321
<b>Format</b> Purified
<b>Ab Type</b> mAb
<b>Host</b> Mouse
<b>Reactivity</b> Human, Dog, Mouse, Rat
<b>App</b> IHC (paraffin), WB
<b>Pos Control</b> Human lung cell line
<b>Clone name</b> 44
<b>Size</b> 0.5 mL
<b>Antigen</b> Synthetic human MSH6 peptide.



MutL protein homolog 1 (MLH-1)

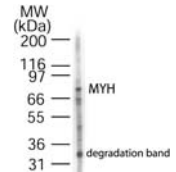
**Cat No** IMG-382  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Clone name** 164C819  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing mice with a synthetic peptide corresponding to amino acids 387-403 [BLAST]DSREQKLD AFLQPLSKP[BLAST] of human MLH1; GenBank no. NP\_000240.1. This peptide sequence is 93% homologous to mouse and dog MLH1.



Western blot analysis of MLH-1 in Molt-4 cell lysate using IMG-382 at 2 µg/ml, and exposed for 15 minutes.

MYH

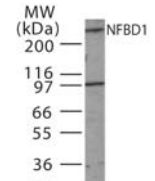
**Cat No** IMG-480  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide corresponding to amino acids 531-546 of human MYH.



Western blot analysis of MYH in 20 µg of HeLa cell lysate using IMG-480 at 2 µg/ml.

NFBD1

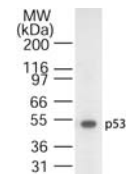
**Cat No** IMG-552  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a synthetic peptide corresponding to amino acids 871-888 of human NFBD1. It will not cross react with mouse or rat NFBD1.



Western blot analysis of NFBD1 in 30 µg of Jurkat cell lysate using IMG-552 at 1:1000 dilution.

p53

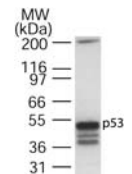
**Cat No** IMG-510  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human, Mouse, Rat  
**App** WB, IP, IHC  
**Pos Control** 293 or A431  
**Clone name** G59-12  
**Size** 0.1 mg  
**Antigen** Recombinant full-length human p53 expressed in the baculovirus expression system was used as antigen.



Western blot analysis of p53 in 293 cells using IMG-510 at 2 µg/ml.

p53

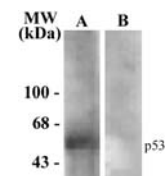
**Cat No** IMG-583  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat  
**App** WB, ChIP, Gel Shift  
**Pos Control** 293  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** A synthetic peptide corresponding to amino acids 367-381 (SHLKS KKGQSTRHK) of human p53 was used as immunogen; GenBank Accession No: NP\_000537.2. This peptide sequence is highly conserved (90-95%) among many mammalian species.



Western blot analysis for human p53 using IMG-583 at 1:1000 dilution on 15 µg of 293 cell lysate.

## p53 (Ser392)

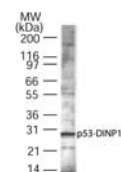
**Cat No** IMG-680  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Monkey  
**App** WB  
**Pos Control** PMA treated NIH3T3 (100 nM, 15 min)  
**Clone name** N/A  
**Size** 0.1 mL  
**Antigen** This antibody was developed against synthetic phosphopeptide corresponding to amino acids residues surrounding the phospho-Ser392 of p53. The antibody was purified by sequential chromatography on phospho- and non-phosphopeptide affinity columns.



Western Blot analysis using 10 ug of PMA treated NIH3T3 lysate (Lane A). The labeling by the antibody was specifically blocked by the phosphopeptide representing Ser 392 (Lane B).

## P53DINP1

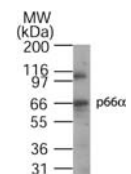
**Cat No** IMG-473  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat  
**App** WB  
**Pos Control** human lung or mouse spleen  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was generated by immunizing rabbit with synthetic peptides of human p53DINP1.



Western blot analysis of p53DINP1 expression in mouse spleen using IMG-473 at 1:5000 dilution.

## p66 $\alpha$ (alpha)

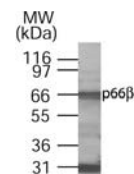
**Cat No** IMG-509  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** HeLa or RAW  
**Clone name** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a synthetic peptide corresponding to aa 137-150 of mouse p66 $\alpha$ . It cross-reacts with human p66 $\alpha$ .



Western blot analysis of p66 $\alpha$  in 15 ugs of HeLa cell lysate using IMG-509 at 1:500 dilution.

## p66 $\beta$ (beta)

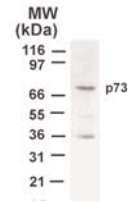
**Cat No** IMG-508A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** HeLa or RAW  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was developed against a synthetic peptide corresponding to aa 445-460 of mouse p66 $\beta$ . It cross-reacts with human p66 $\beta$ .



Western blot analysis of p66 $\beta$  in 15 ugs of Raw cell lysate using IMG-508 at 1:500 dilution.

p73

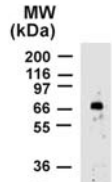
**Cat No** IMG-246  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human, Mouse  
**App** IF/ICC, IP, WB  
**Pos Control** Please refer to Product Citations for examples of endogenous expression of p73  
**Clone name** 5B429  
**Size** 0.1 mg  
**Antigen** This antibody was raised against full-length human p73. It reacts with an epitope that is located on the N-terminal region of human p73. It does not cross react with p53.



Western blot analysis of p73 in transfected cell lysate using IMG-246 at 2 ug/ml.

p73

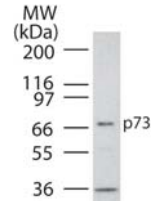
**Cat No** IMG-260  
**Format** Ascites  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB  
**Pos Control** transfected cells  
**Clone name** 5B789  
**Size** 0.2 mL  
**Antigen** This antibody was raised against full-length human p73. IMG-260 reacts with an epitope that is located on the C-terminal region of human p73 only. It does not cross react with mouse p73 or with p53.



Western blot analysis for p73 using IMG-260 at 1:500 in transfected cell lysate.

p73

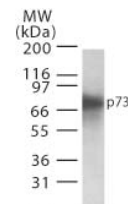
**Cat No** IMG-5356A  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB, IP, IF/ICC  
**Pos Control** p73 transfected cells  
**Size** 0.1 mg  
**Antigen** A portion of amino acids 75-125 of human p73 protein were used as the immunogen.



Western blot analysis of p73 in transfected cell lysate using IMG-5356A at 1 ug/ml.

p73 (Alpha, beta, Gamma, Delta Isoforms)

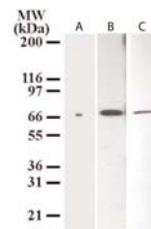
**Cat No** IMG-259A  
**Format** Ascites  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human, Mouse  
**App** WB, IP, IF/ICC  
**Pos Control** Please refer to Product Citations for examples of endogenous expression of p73.  
**Clone name** 5B1288  
**Size** 0.2 mL  
**Antigen** This antibody was raised against full-length human p73. The epitope is thought to lie around the center of the molecule. It reacts with alpha, beta, gamma and delta isoforms of mouse and human p73 as well as the dominant negative p73 (Costanzo, et al, 2002). Because of its reactivity pattern it may be regarded as anti-pan p73. The antibody does not cross react with p53.



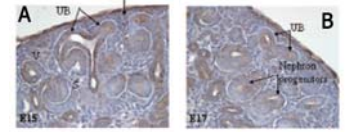
Western blot analysis for p73 using IMG-259A at 1 in 500 dilution against transfected cell lysate.

## p73 (deltaN p73)

**Cat No** IMG-313  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human, Mouse, Rat  
**App** WB, ChIP, IHC (paraffin)  
**Clone name** 38C674.2  
**Size** 0.1 mg  
**Antigen** This antibody was developed against a peptide corresponding to amino acid residues 2-13 [BLAST]LYVGDPARHLAT[/BLAST] of human dNp73. Mouse and human sequences are more than 95 % identical at these amino acid residues. In mouse, alanine at position 8 is replaced by methionine.



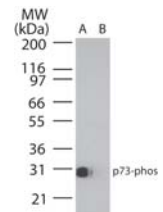
Western blot analysis for dNp73 using IMG-313 at 1 ug/ml in A) a cell line transfected with dNp73 cDNA, B) HeLa, and C) NIH 3T3 cell lysate.



IHC analysis of Delta Np73 in embryonic day 15 (A) and day 17 (B) E15 rat embryonic kidney at 1:2000. Delta Np73 is expressed in ureteric bud (UB) branches, and metanephrogenic mesenchyme (MM), as well as in cells invading the glomerular cleft. DeltaNp73 is expressed in the ureteric bud (UB) branches, metanephrogenic mesenchyme (MM), and nephron progenitors.

## p73 (Tyr99)

**Cat No** IMG-5355A  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Clone name** N/A  
**Size** 0.02 mg  
**Antigen** This antibody was developed against 3 synthetic peptides corresponding to human TLR10 [BLAST]MSLRKVPADLT-PATTT[/BLAST] AA 37-52: by ELISA this antibody responds the best [BLAST]RNLSLENAKTSVLLLNK[/BLAST] AA 235-251: weak by ELISA [BLAST]FANNTPLEHLDSLQNL AA[/BLAST] 392-409: weak by ELISA



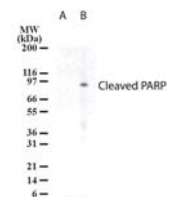
Western blot analysis of phosphorylated p73 in (A) recombinant fusion protein containing phosphorylated tyrosine at position 99 and (B) fusion partner without this amino acid, using IMG-5355A at 0.25 ug/ml.

## PARP

**Cat No** IMG-80405  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse, Rat  
**App** IHC (paraffin)  
**Pos Control** Tonsil  
**Clone name** N/A  
**Size** 0.5 mL  
**Antigen** A synthetic peptide from the N-terminal region of human PARP.

## PARP (cleavage specific)

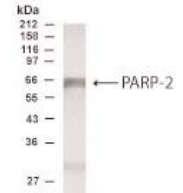
**Cat No** IMG-401A  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** FC (Intracellular), WB  
**Pos Control** camptothecin treated HL-60 (12 hr)  
**Clone name** 194C1439  
**Size** 0.1 mg  
**Antigen** This antibody was developed by immunizing mice with a synthetic peptide containing amino acids near 214/215-cleavage site of human PARP.



Detection of cleaved PARP in HL-60 cell lysates. Lane A. Untreated HL-60 cells. Lane B. HL-60 cells treated with camptothecin for 12 hrs.

**PARP-2**

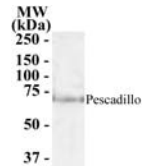
**Cat No** IMG-4137  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Clone name** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 43-59 [QRQESKMPVAGGKANK] of the 62 kDa human PARP-2 protein.



Western blot of analysis of PARP-2 in 3T3 cell lysate using IMG-4137 at 1:250 dilution.

**Pescadillo**

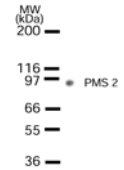
**Cat No** IMG-3233  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB, ELISA  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence GGLEKKKYERGSA, from N Terminus of the protein sequence according to NP\_055118



IMG-3233 (1 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

**PMS2**

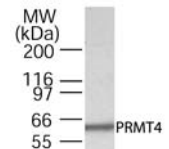
**Cat No** IMG-388  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** HCT-116 or NIH 3T3  
**Clone name:** 163C1251  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing mice with a synthetic peptide to human PMS2.



Western blot analysis of PMS2 using IMG-388 at 2 µg/ml against 10 µg of NIH 3T3 cell lysate.

**PRMT4**

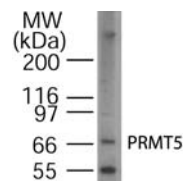
**Cat No** IMG-496  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a mixture of synthetic peptides containing amino acids 45-69 and 595-608 of human PRMT4.



Western blot analysis of PRMT4 in cell lysates from HeLa cells using IMG-496 at 0.5 µg/ml. Twenty microgram of HeLa cell lysate was loaded per well of mini gel.

**PRMT5**

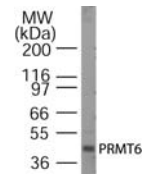
**Cat No** IMG-505  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a mixture of synthetic peptides corresponding to human PRMT5 amino acid sequence. HeLa cell lysate (IMGENEX, cat. no. 40161) can be used as positive control. This antibody also weakly cross-reacts with mouse cell lines (3T3 and RAW).



Western blot analysis of PRMT5 in cell lysates from HeLa cells using IMG-505 at 1:500. Twenty microgram of HeLa cell lysate was loaded per well of a mini gel.

## PRMT6

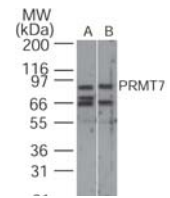
**Cat No** IMG-506  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** HeLa or RAW  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** This antibody was developed against a mixture of synthetic peptides corresponding to human PRMT6 amino acid sequence. HeLa cell lysate (IMGENEX, cat. no. 40161) can be used as positive control. This antibody also cross reacts with mouse cell line (RAW).



Western blot analysis of PRMT6 in cell lysates from HeLa cells using IMG-506 at 1:500 dilution. Twenty microgram of HeLa cell lysate was loaded per well of a mini gel.

## PRMT7

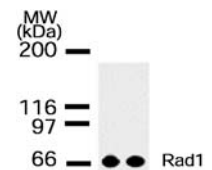
**Cat No** IMG-5121A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** HeLa or NIH 3T3 cell lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Amino acids 346-360 of human PRMT7 were used as the immunogen.



Western blot analysis of PRMT7 in (A) HeLa and (B) NIH 3T3 cell lysate using IMG-5121A at 0.5 ug/ml.

## Rad1

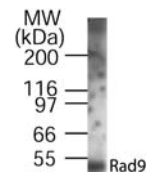
**Cat No** IMG-288  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB, IF/ICC  
**Pos Control** 293, HeLa, or NIH 3T3  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** The antibody was raised against a synthetic peptide corresponding to the amino acid 133-148 of human Rad1, which is a homolog of Schizosaccharomyces pombe Rad1. It will cross-react with mouse Rad1.



The anti-Rad1 rabbit PcAb (Cat#IMG-288) was diluted at 2 ug/ml (lane 1) and 1 ug/ml (lane 2) and tested against 10 ug of 293 cell lysate by western blotting. A single band at 66 kDa is detected.

## Rad9

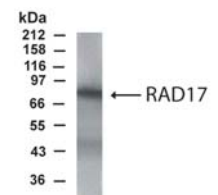
**Cat No** IMG-164  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB, IHC, IP  
**Pos Control** recombinant Rad9  
**Clone name:** 93A535  
**Size** 0.1 mg  
**Antigen** The antibody was raised against fusion protein of human full length Rad9.



Western blot analysis of Rad9 using IMG-164 at 2 ug/ml against recombinant Rad9.

## Rad17

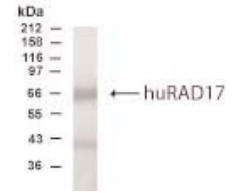
**Cat No** IMG-4028  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** S. pombe (yeast)  
**App** WB  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 10-23 [STKRSLKKKKIRKI] of the S. pombe RAD17 75 kDa protein.



Western blot analysis of yeast RAD17 using IMG-4028 at 1:500 dilution.

Rad17

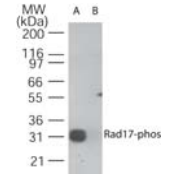
**Cat No** IMG-4029  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 2-15 [NQVTDWVDPSFDDF] of human RAD17.



Western blot analysis of human RAD17 in heart lysate using IMG-4029 at 1:500 dilution.

Rad17/Rad17-phosphorylated (Ser647)

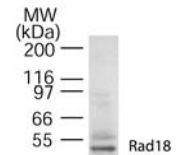
**Cat No** IMG-5087A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse  
**App** WB  
**Pos Control** Rad17-phospho fusion protein  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** The antibody was raised against a synthetic peptide corresponding to the amino acids 644-652 (LPLBQNS-GS) of mouse Rad17. The B represents a phosphorylated serine residue.



Western blot analysis of Rad17-phos in A) a partial recombinant protein containing phospho Ser647 and B) the same sequence but not containing the phospho serine and was blocked using the non-phospho control of the immunizing peptide, using IMG-5087A at 0.1 ug/ml.

Rad18

**Cat No** IMG-269  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Human  
**App** WB, IF/ICC  
**Pos Control** HL60  
**Clone name:** 79B1048.1  
**Size** 0.1 mg  
**Antigen** The antibody was raised against a synthetic peptide corresponding to the amino acids 402-414 of human Rad18.



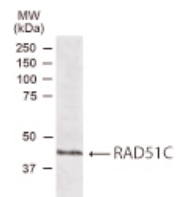
The anti-Rad18 mAb (Imgenex Cat#IMG-269) was diluted at 2 µg/ml and tested against 20 µg of HL-60 cell lysate.

Rad51

**Cat No** IMG-80228  
**Format** Purified  
**Ab Type** mAb  
**Host** Mouse  
**Reactivity** Mouse, Rat  
**App** IHC (paraffin)  
**Pos Control** Testis  
**Clone name:** 51RAD01  
**Size** 0.5 mL  
**Antigen** BALB/C mice were injected with recombinant Rad51 protein.

Rad51C

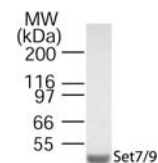
**Cat No** IMG-3536  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]RGKTFRFEMQRDLC[BLAST], from the N Terminus of the protein sequence according to NP\_002867; NP\_478123; NP\_478124.



Western blot analysis of RAD51C in HeLa lysate using IMG-3536 at 2 ug/ml.

## Set7/9

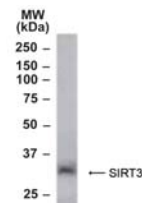
**Cat No** IMG-587  
**Format** Sera  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human  
**App** WB  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.2 mL  
**Antigen** Two synthetic peptides corresponding to amino acids 131-145 (GEVNEDGEMTGEKIA) and 336-352 (GYDHSPPGKSGPEAPEW) of human Set7/9 were used as immunogen; GenBank Accession No. NP\_085151.1. These sequences are 100% conserved between human, mouse and rat.



Western blot analysis for Set7/9 using IMG-587 at 1:500 on 20 ug of HeLa whole cell lysate.

## SIRT3

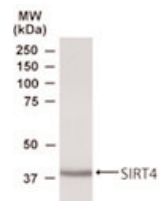
**Cat No** IMG-3875  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** ELISA  
**Pos Control** Human Liver lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence C-QRETGKLDGPK, from the C Terminus of the protein sequence according to NP\_036371.1, NP\_001017524.1.



Western blot analysis of SIRT3 in Human Liver lysate using IMG-3875 at 0.2 ug/ml.

## SIRT4

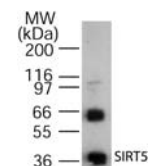
**Cat No** IIMG-3580  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** Human Kidney lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]SRCGELLPLIDPC/[BLAST], from the C Terminus of the protein sequence according to NP\_036372.



Western blot analysis of SIRT4 in Human Kidney lysate using IMG-3580 at 1 ug/ml.

## SIRT5

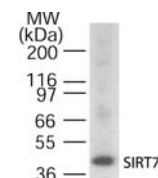
**Cat No** IMG-479  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human, Mouse  
**App** WB  
**Pos Control** human intestine  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** A synthetic peptide corresponding to amino acids 30-46 of human SIRT5 was used as immunogen.



Western blot analysis for SIRT5 using IMG-479 at 1:1000 dilution against 20 µg of human intestine lysate.

## SIRT7

**Cat No** IMG-425  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** human liver  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** A mixture of synthetic peptides corresponding to amino acids 35-51 and 361-377 of human SIRT7 was used as immunogen.

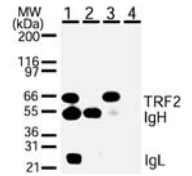


Western blot analysis for SIRT7 using IMG-425 at 1 ug/ml against 15 µg of human liver lysate.



TRF2

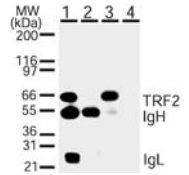
**Cat No** IMG-124A, B  
**Format** Purified, Biotinylated  
**Ab Type** mAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB, ELISA, IHC, IP  
**Pos Control** HL60  
**Clone name:** 4A794.15  
**Size** 0.1 mg  
**Antigen** The antibody recognizes distinct doublet bands of approximate size 66 kDa corresponding to the molecular size of huTRF2 by western blot analysis against lysates from most human cell lines.



Immunoprecipitation (IP) Western Blot (WB) Analysis of TRF2 in HL60 cells: (Lane 1) IP with IMG-124 (mouse anti-TRF2). (Lane 2) IP with control mouse IgG. (Lane 3) IP with IMG-148 (goat anti-TRF2). (Lane 4) IP with pre-immune goat Ig. (Lanes 1-4) WB with IMG-124. TRF2 is detected as an ~ 66 kD protein.

TRF2

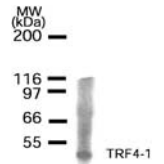
**Cat No** IMG-148  
**Format** Purified  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Mouse, Human  
**App** WB, IP, ChIP  
**Pos Control** Daudi, HeLa, HL60, or Jurkat  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Baculovirus expressed His-tagged whole length TRF2 protein was used for immunizing goat.



Immunoprecipitation (IP) Western Blot (WB) Analysis of TRF2 in HL60 cells. Lane 1. IP with IMG-124 (mouse anti-TRF2). Lane 2. IP with control mouse IgG. Lane 3 IP with IMG-148 (goat anti-TRF2). Lane 4. IP with pre-immune goat Ig. Lanes 1-4. WB with IMG-124. TRF2 is detected as an ~ 66 kD protein.

TRF4-1

**Cat No** IMG-384  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HeLa  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a synthetic peptide containing amino acids 447-462 of human TRF4-1.



Detection of TRF4-1 in HeLa cell lysate with anti-TRF4-1 IMG-384.

TRF4-2

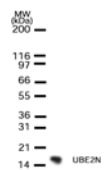
**Cat No** IMG-3529  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]QCRPLLPHPALVT[BLAST], from the C Terminus of the protein sequence according to NP\_071892.



Western blot analysis of TRF4-2 in Jurkat lysate using IMG-3529 at 2 ug/ ml.

UBE2N

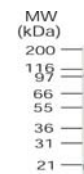
**Cat No** IMG-385  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB, IP  
**Pos Control** human heart (Imgenex Cat. No. # 40142)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbits with a mixture of synthetic peptides containing amino acids 2-19 and 131-148 of human UBE2N.



Detection of UBE2N in human heart lysate with anti-UBE2N pAb (Cat. #IMG-385) at 2 ug/ml.

## UBE2V1a

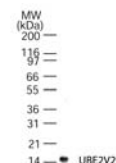
**Cat No** IMG-5117A  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** Jurkat, HeLa or RAW (mouse) cell lysates.  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** A synthetic peptide corresponding to amino acids 31-49 of human UBE2V1a. Genbank accession no. NP\_954595.1.



Western blot analysis of UBE2V1a in Jurkat using IMG-5117A.

## UBE2V2

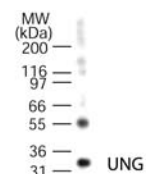
**Cat No** IMG-400  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Pos Control** HL-60 (Imgenex Cat. No. # 40169)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbit with a mixture of synthetic peptides containing amino acids 12-28 of human UBE2V2.



Detection of UBE2V2 in HL-60 cell lysate with anti-UBE2V2 pAb (Cat. #IMG-400) at 2ug/ml dilution

## UNG

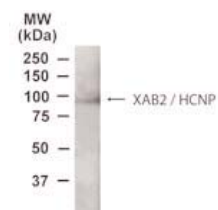
**Cat No** IMG-403  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Mouse, Human, Rat  
**App** WB  
**Pos Control** HeLa (Imgenex Cat. No. # 40161)  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** This antibody was generated by immunizing rabbit with a synthetic peptide sequence (CRHFSKTNEL-LQKSGKKP) corresponding to amino acids 281-298 of human UNG1 (NP 003353.1) and amino acids 290-307 of human UNG2 (NP 550433.1). The peptide sequence used for immunogen is highly conserved between mammalian and invertebrates.



Detection of UNG in HeLa cell lysate with anti-UNG pAb (Cat. #IMG-403) at 2ug/ml dilution.

## XAB2/HCNP

**Cat No** IMG-3365  
**Format** Purified, Peptide Affinity  
**Ab Type** pAb  
**Host** Goat  
**Reactivity** Human  
**App** WB  
**Pos Control** A431 lysate  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide with sequence [BLAST]SVPAAVFGSLKED[BLAST], from C Terminus of the protein sequence according to NP\_064581.



IMG-3365 staining (0.3ug/ml) of A431 lysate (RIPA buffer, 35ug total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

## XAB2/HCNP

**Cat No** IIMG-4128  
**Format** Purified  
**Ab Type** pAb  
**Host** Rabbit  
**Reactivity** Human  
**App** WB  
**Clone name:** N/A  
**Size** 0.1 mg  
**Antigen** Peptide corresponding to amino acids 840-855 of human XAB2 protein.

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