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#### **Ubiquitin Antibody (C-term)**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1229A

#### **Specification**

## Ubiquitin Antibody (C-term) - Product Information

Application WB, IHC-P, IF,E Primary Accession Other Accession P62975, P62972,

P62975, P62972, P0CG69, P62976, P0CG71, P0CG63 Q63429, POCG68, P0CG50, P0CH28, P0CG51, P0CG49, P0CG47, P0CG62, P0CG53, P05759, P62982, P62983, P62979, P15357, P79781, P62992, P62986, P63053, P62984, P0C273, P62987, P18101, P49632, P63048, P0CH09, P0CH08

Reactivity Human

Predicted Yeast, Bovine,

C.Elegans, Drosophila, Monkey, Mouse, Pig, Rat, Chicken,

Hamster, Xenopus, Rabbit

Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig
Calculated MW 77039
Antigen Region 36-66

## Ubiquitin Antibody (C-term) - Additional Information

#### **Gene ID 7316**

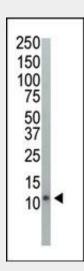
Other Names Polyubiquitin-C, Ubiquitin, UBC

#### Target/Specificity

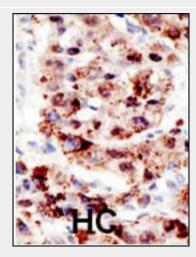
This Ubiquitin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 36-66 amino acids from the C-terminal region of human Ubiquitin.

#### **Dilution**

WB~~1:1000 IHC-P~~1:50~100 IF~~1:10~50



Western blot analysis of anti-Ubiquitin Pab (Cat. #AP1229a) in HeLa cell lysate. Ubiquitin (Arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



Characterization of FOXP2 Isoforms. FOXP2.10t

#### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

#### **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

Ubiquitin Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Ubiquitin Antibody (C-term) - Protein Information

#### Name UBC

#### **Function**

Ubiquitin: Exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in lysosomal degradation; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling.

**Cellular Location** 

Ubiquitin: Cytoplasm. Nucleus

### **Ubiquitin Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

• Western Blot

was detected with an antibody to the N-terminal XpressTM tag or FOXP2 (green) and counterstained with antibodies to the aggresome marker ubiquitin (red). Nuclei are marked by DAPI staining (blue). Ubiquitin co-localizes with FOXP2.10t aggregates suggesting that these cellular bodies represent aggresomes. (Hum. Mol. Genet. 2006 Nov 01;15(21):3154-3167)

# Ubiquitin Antibody (C-term) - Background

This gene encodes ubiquitin, one of the most conserved proteins known. Ubiquitin is required for ATP-dependent, nonlysosomal intracellular protein degradation of abnormal proteins and normal proteins with a rapid turnover. Ubiquitin is covalently bound to proteins to be degraded, and presumably labels these proteins for degradation. Ubiquitin also binds to histone H2A in actively transcribed regions but does not cause histone H2A degradation, suggesting that ubiquitin is also involved in regulation of gene expression. This gene consists of three direct repeats of the ubiquitin coding sequence with no spacer sequence. Consequently, the protein is expressed as a polyubiquitin precursor with a final amino acid after the last repeat. Aberrant form of this protein has been noticed in patients with Alzheimer's and Down syndrome.

# **Ubiquitin Antibody (C-term) - References**

Chan, Y.L., et al., Biochem. Biophys. Res. Commun. 215(2):682-690 (1995). Cook, W.J., et al., J. Mol. Biol. 236(2):601-609 (1994). Hubbard, M.J., et al., Biochim. Biophys. Acta 1200(2):191-196 (1994). Wajih, N., et al., Protein Seq. Data Anal. 5(1):31-32 (1992). Cook, W.J., et al., J. Biol. Chem. 267(23):16467-16471 (1992).

- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

### **Ubiquitin Antibody (C-term) - Citations**

- Myocardin is required for maintenance of vascular and visceral smooth muscle homeostasis during postnatal development.
- Functional genetic analysis of mutations implicated in a human speech and language disorder.