

NFκB-p100(Phospho-Ser870) Antibody

Catalog No: #11016

Package Size: #11016-1 50ul #11016-2 100ul #11016-4 25ul

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Support: tech@signalwayantibody.com

Description

Product Name	NFκB-p100(Phospho-Ser870) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of NFκB1B-p100 only when phosphorylated at serine 870.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of serine 870(Y-G-S(p)-Q-S) derived from Human NFκB-p100.
Target Name	NFκB-p100
Modification	Phospho-Ser870
Other Names	p52; p105; H2TF1; LYT10; NF-κB2
Accession No.	Swiss-Prot: Q00653NCBI Gene ID: 4791NCBI mRNA: NM_001077494.2NCBI Protein: NP_001070962.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

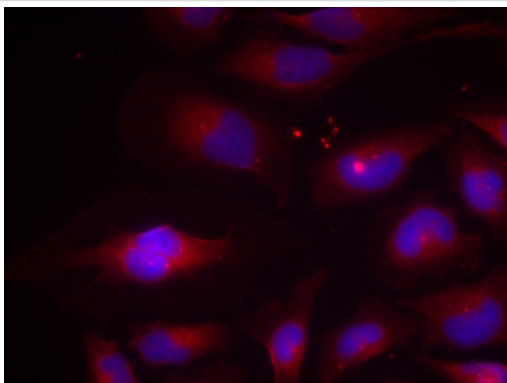
Predicted MW: 120kd

Western blotting: 1:500

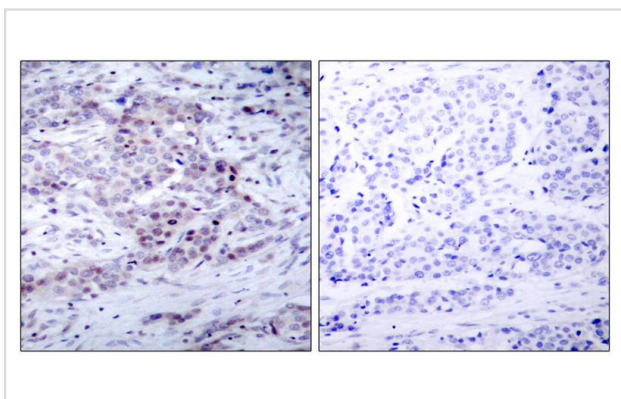
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

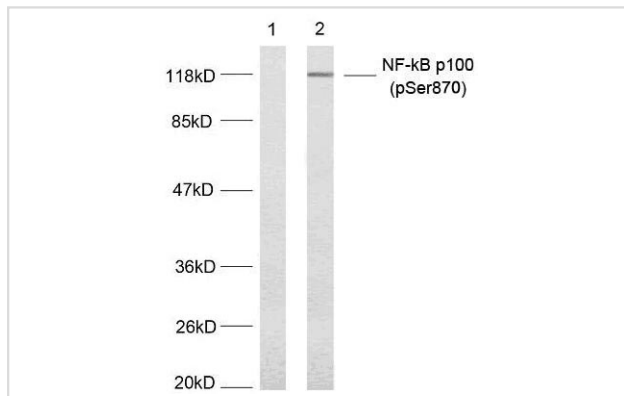
Images



Immunofluorescence staining of methanol-fixed HeLa cells using NF-κB p100(phospho-Ser870) antibody (#11016, Red).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using NF-κB p100(phospho- Ser870) antibody (#11016).



Western blot analysis of extract from MDA-MB-435 cells untreated or treated with TNF-α (20ng/ml, 5min) using NF-κB p100(phospho-Ser870) antibody (#11016).

Background

NF-kappa-B is a pleiotropic transcription factor present in almost all cell types and is the endpoint of a series of signal transduction events that are initiated by a vast array of stimuli related to many biological processes such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. In a non-canonical activation pathway, the MAP3K14-activated CHUK/IKKA homodimer phosphorylates NFKB2/p100 associated with RelB, inducing its proteolytic processing to NFKB2/p52 and the formation of NF-kappa-B RelB-p52 complexes. The NF-kappa-B heterodimeric RelB-p52 complex is a transcriptional activator. The NF-kappa-B p52-p52 homodimer is a transcriptional repressor. NFKB2 appears to have dual functions such as cytoplasmic retention of attached NF-kappa-B proteins by p100 and generation of p52 by a cotranslational processing. The proteasome-mediated process ensures the production of both p52 and p100 and preserves their independent function. p52 binds to the kappa-B consensus sequence 5'-GGRNYYCC-3', located in the enhancer region of genes involved in immune response and acute phase reactions. p52 and p100 are respectively the minor and major form; the processing of p100 being relatively poor. Isoform p49 is a subunit of the NF-kappa-B protein complex, which stimulates the HIV enhancer in synergy with p65.

Dobrzanski P., Ryseck R.P., Bravo R. *EMBO J.* 13:4608-4616(1994)

Betts J.C., Nabel G.J. *Mol. Cell. Biol.* 16:6363-6371(1996)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.