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35-1015: Polyclonal Antibody to NFkB-p100/p52(Phospho-Ser870)

Clonality :	Polyclonal
Application :	WB,IHC,IF
Reactivity :	Human,Mouse,Rat
Gene :	NF-kB2
Gene ID :	4791
Uniprot ID :	Q00653
Format :	Purified
Alternative Name :	p52, p105, H2TF1, LYT10, NF-kB2
Isotype :	Rabbit IgG
Immunogen Information :	Peptide sequence around phosphorylation site of serine 870(Y-G-S(p)-Q-S) derived from Human NF?B-p100.

Description

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'-GGRNNYYCC-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)

Product Info

Amount :	50 µl / 100 µl
Content :	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Predicted MW: 120kd, Western blotting: 1:500, Immunohistochemistry: 1:50~1:100, Immunofluorescence: 1:100~1:200

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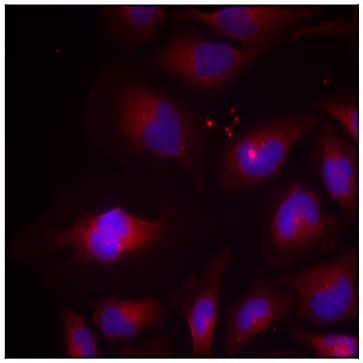

Figure 1: Immunofluorescence staining of methanol-fixed HeLa cells using NF-ÃŽºB p100(phospho-Ser870) antibody (35-1015 , Red).

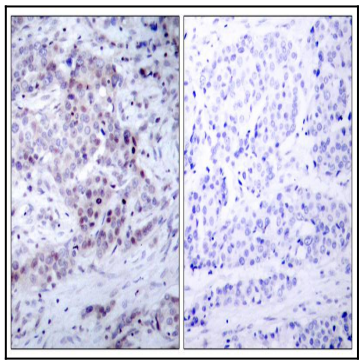

Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using NF-ÃŽºB p100(phospho- Ser870) antibody (35-1015).

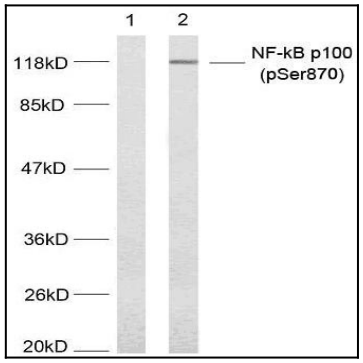

Figure 3: Western blot analysis of extract from MDA-MB-435 cells untreated or treated with TNF-a (20ng/ml, 5min) using NF-ÃŽºB p100(phospho-Ser870) antibody (35-1015).

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