

Anti-Phospho-NFkB p100 (Ser870) Polyclonal Antibody

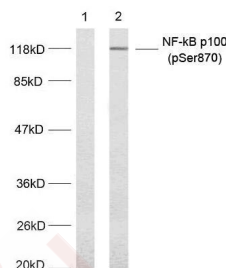
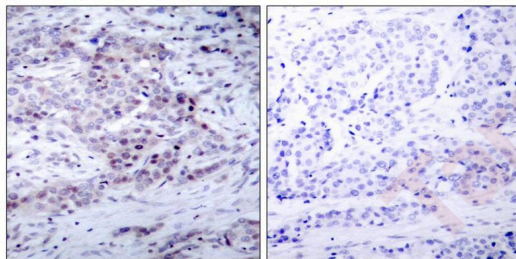
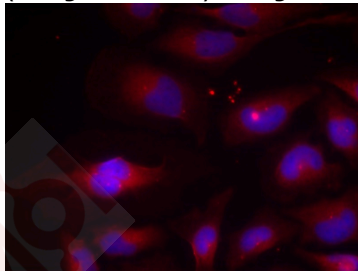
Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
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

Verified Activity:

1. Immunofluorescence staining of methanol-fixed HeLa cells using NF- κ B p100(phospho-Ser870) antibody (TMAC-02826, Red).
2. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using NF- κ B p100(phospho- Ser870) antibody (TMAC-02826).
3. Western blot analysis of extract from MDA-MB-435 cells untreated or treated with TNF- α (20ng/ml, 5min) using NF- κ B p100(phospho-Ser870) antibody (TMAC-02826).



Application: IF,IHC,WB

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Peptide sequence around phosphorylation site of serine 870(Y-G-S(p)-Q-S) derived from Human NFκB-p100

Antigen Species: human

Uniprot ID: Q00653

Synonyms: NFκB p100 (p-Ser870);p-NFκB p100 (Ser870);NFκB p100 (p-S870);p-NFκB p100 (S870)

Research Background

NF-κappa-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-κappa-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-κappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-κappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-κappa-B inhibitor (I-κappa-B) family. In a conventional activation pathway, I-κappa-B is phosphorylated by I-κappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-κappa-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-κappa-B RelB-p52 complexes. The NF-κappa-B heterodimeric RelB-p52 complex is a transcriptional activator. The NF-κappa-B p52-p52 homodimer is a transcriptional repressor. NFKB2 appears to have dual functions such as cytoplasmic retention of attached NF-κappa-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-κappa-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)

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