

## 35-1014: Polyclonal Antibody to NFkB-p100/p52(Phospho-Ser866)

<b>Clonality :</b>	Polyclonal
<b>Application :</b>	WB,IHC,IF
<b>Reactivity :</b>	Human,Mouse,Rat
<b>Gene :</b>	NF-kB2
<b>Gene ID :</b>	4791
<b>Uniprot ID :</b>	Q00653
<b>Format :</b>	Purified
<b>Alternative Name :</b>	p52, p105, H2TF1, LYT10, NF-kB2
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Peptide sequence around phosphorylation site of serine 866(E-D-S(p)-A-Y) derived from Human NFkB-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'-GGRNNYCC-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) Beg A.A., Baldwin A.S. Jr. Oncogene 9:1487-1492(1994)

### Product Info

<b>Amount :</b>	50 µl / 100 µl
<b>Content :</b>	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Storage condition :</b>	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: 1:500~1:1000, Immunohistochemistry: 1:50~1:100 Immunofluorescence: 1:100~1:200

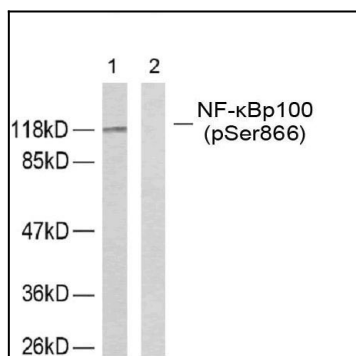


Figure 1: Western blot analysis of extracts from ovary cancer cells using NF- $\kappa$ B p100 (phospho-Ser866) antibody (35-1014 ).

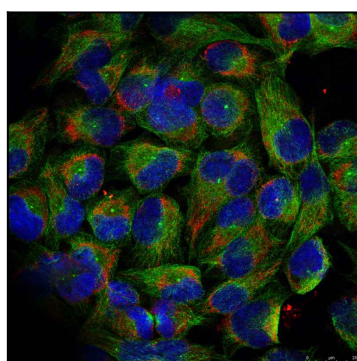


Figure 2: Immunofluorescence staining of methanol-fixed HeLa cells using NF- $\kappa$ B p100 (phospho-ser866) antibody (35-1014 , Red).

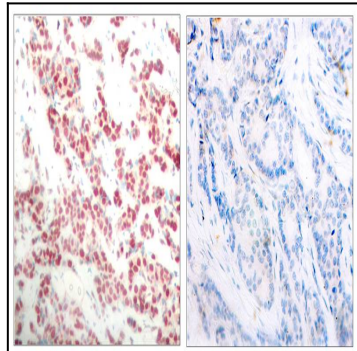


Figure 3: Immunohistochemical analysis of paraffin- embedded human breast carcinoma tissue using NF- $\kappa$ B p100 (phospho- ser866) antibody (35-1014 ).