



## NFκB p65 (Ab-536) Antibody

#21014

**Catalog Number:** 21014-1, 21014-2

**Amount:** 50µg/50µl, 100µg/100µl

**Swiss-Prot No. :** Q04206

**Form of Antibody:** Rabbit IgG 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.

**Storage/Stability:** Store at -20°C/1 year

**Immunogen:** The antiserum was produced against synthesized non-phosphopeptide derived from human NFκB p65 around the phosphorylation site of serine 536 (F-S<sup>P</sup>-I-A).

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen

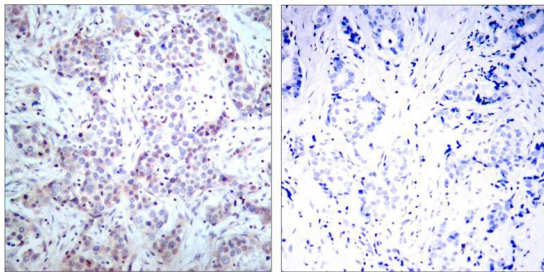
**Specificity/Sensitivity:** NF-κ B p65 (Ab-536) antibody detects endogenous levels of total NF-κ B p65 protein

**Reactivity:** Human, Mouse, Rat

### Applications:

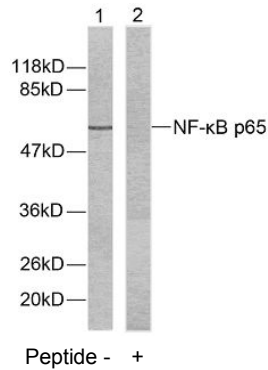
Predicted MW: 65kd

WB: 1:500~1:1000 IHC: 1:50~1:100



Peptide - +

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using NF-κB p65 (Ab-536) antibody (#21014).



Western blot analysis of extracts from HeLa cells using NF- $\kappa$ B p65 (Ab-536) antibody (#21014).

### 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 and the heterodimeric p65-p50 complex appears to be most abundant one. 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. NF-kappa-B heterodimeric p65-p50 and p65-c-Rel complexes are transcriptional activators. The NF-kappa-B p65-p65 complex appears to be involved in invasion-mediated activation of IL-8 expression. The inhibitory effect of I-kappa-B upon NF-kappa-B in the cytoplasm is exerted primarily through the interaction with p65. p65 shows a weak DNA-binding site which could contribute directly to DNA binding in the NF-kappa-B complex. Associates with chromatin at the NF-kappa-B promoter region via association with DDX1

### References:

- Doyle S L, et al. (2005) J Biol Chem. 280(25): 23496-23501.
- Anwar K N, et al. (2004) J Immunol. 173(11): 6965-6972.
- Baeuerle P A, et al. (1994) Annu Rev Immunol. 12:141-179.
- Baeuerle P A, et al. (1996) Cell 87:13-20.
- Haskill S, et al. (1991) Cell 65:1281-1289.