



## NFκB p65 (Phospho-Thr435) Antibody

#11012

**Catalog Number:** 11012-1, 11012-2

**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 phosphopeptide derived from human NFκB p65 around the phosphorylation site of threonine 435 (E-G-TP-L-S).

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site

**Specificity/Sensitivity:**

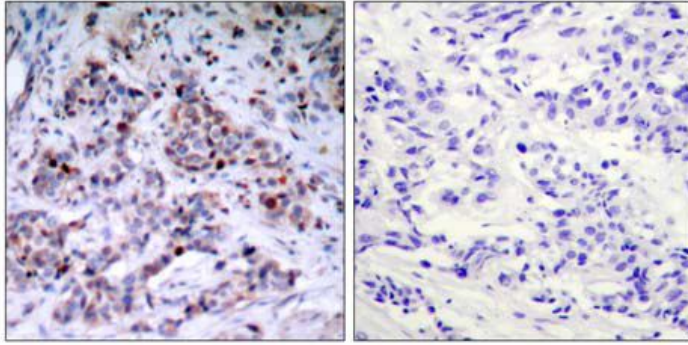
NF κ B-p65 (phospho-Thr435) antibody detects endogenous levels of NF κ B-p65 only when phosphorylated at threonine 435

**Reactivity:** Human, Mouse, Rat

**Applications:**

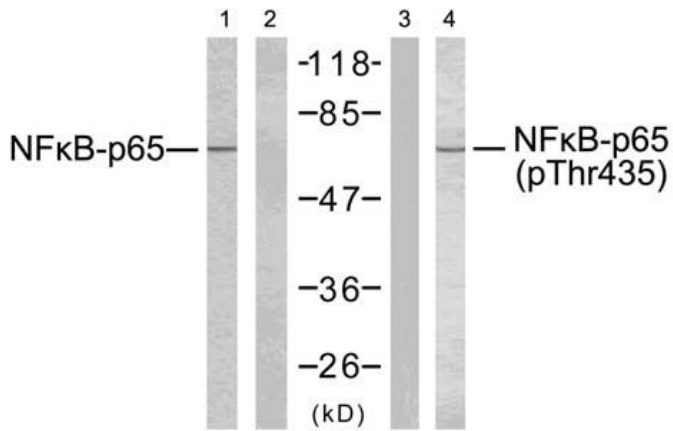
Predicted MW: 65kd

WB: 1:500~1:1000 IHC: 1:50~1:100 IF:1:100~1:200



P-Peptide - +

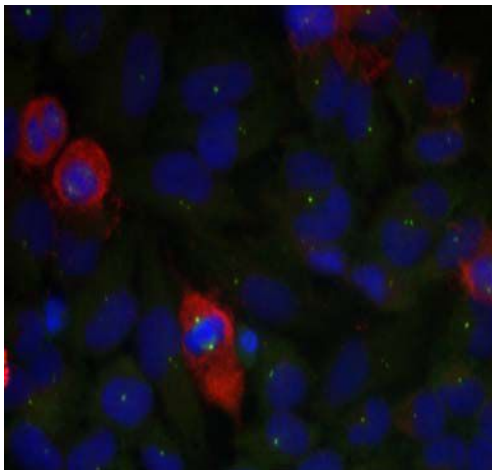
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using NF- $\kappa$ B p65 (Phospho-Thr435) antibody (#11012).



TNF- $\alpha$  - - - +

Peptide - + - -

Western blot analysis of extracts from COS7 cells using NF- $\kappa$ B p65 (Ab-435) antibody (#21012, Line 1 and 2) and NF- $\kappa$ B p65 (phospho-Thr435) antibody (#11012, Line 3 and 4)



Immunofluorescence staining of methanol-fixed HeLa cells  
using NF- $\kappa$ B p65(phospho-Thr435) antibody (#11012,Red)

### **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:**

- Yeh PY, et al. (2004) J Biol Chem. 279(25): 26143-26148.
- Ryo A, et al. (2003) Mol Cell.12(6): 1413-1426.
- 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.