



NFκB p65 (Ab-529) Antibody

#21210

Catalog Number: 21210-1, 21210-2

Amount: 50µg/50µl, 100µg/100µl

Swiss-Prot No. : Q04206

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), 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 529 (L-L-S^P-G-D).

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

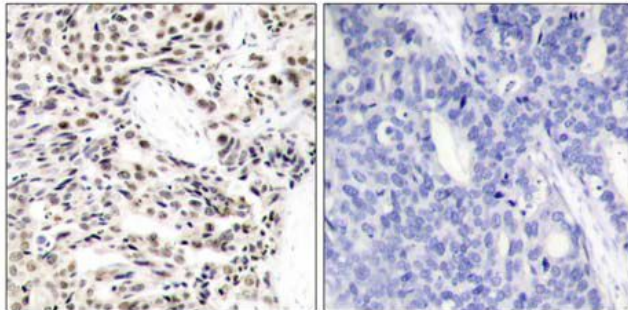
Specificity/Sensitivity: NF-κ B p65 (Ab-529) antibody detects endogenous levels of total NF-κ B p65 protein

Reactivity: Human, Mouse, Rat

Applications:

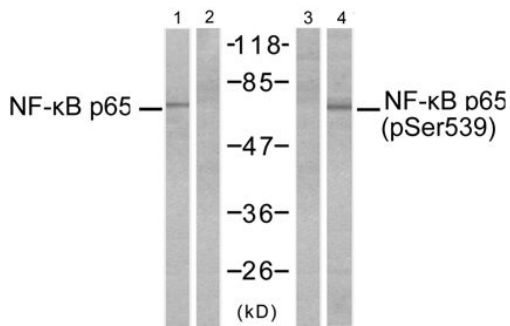
Predicted MW: 65kd

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-529) antibody (#21210).



TNF- α + + - +

Peptide - + - -

Western blot analysis of extracts from MDA-MB-231 cells, untreated or treated with TNF- α (20ng/ml, 10min) using NF- κ B p65 (Ab-529) antibody (#21210, Line 1 and 2) and NF- κ B p65 (phospho-Ser529) antibody (#11217, Line 3 and 4).

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:

- Xu C, et al (2005) *Oncogene*:24(28): 4486-95.
 McNulty SE, et al. (2004) *Pigment Cell Res* Apr; 17(2): 173-80.
 Madrid LV, et al. (2001) *J Biol Chem*: 276(22): 18934-40.
 Wang D, et al. (2000) *J Biol Chem* : 275(42): 32592-7.