

NF- κ B p65 Blocking Peptide

✓ 100 μ g

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Description: This peptide is used to block NF- κ B p65 (C22B4) Rabbit mAb #4764 reactivity in peptide dot blot protocols.

Background: Transcription factors of the nuclear factor κ B (NF- κ B)/Rel family play a pivotal role in inflammatory and immune responses (1,2). There are five family members in mammals: RelA, c-Rel, RelB, NF- κ B1 (p105/p50), and NF- κ B2 (p100/p52). Both p105 and p100 are proteolytically processed by the proteasome to produce p50 and p52, respectively. Rel proteins bind p50 and p52 to form dimeric complexes that bind DNA and regulate transcription. In unstimulated cells, NF- κ B is sequestered in the cytoplasm by I κ B inhibitory proteins (3-5). NF- κ B-activating agents can induce the phosphorylation of I κ B proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF- κ B to enter the nucleus where it regulates gene expression (6-8). NIK and IKK α (IKK1) regulate the phosphorylation and processing of NF- κ B2 (p100) to produce p52, which translocates to the nucleus (9-11).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks NF- κ B p65 (C22B4) Rabbit mAb #4764 signal in peptide dot blot.

Directions for Use: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols. Recommended antibody dilutions can be found on the product data sheet.

Background References:

- (1) Baeuerle, P.A. and Henkel, T. (1994) *Annu Rev Immunol* 12, 141-79.
- (2) Baeuerle, P.A. and Baltimore, D. (1996) *Cell* 87, 13-20.
- (3) Haskill, S. et al. (1991) *Cell* 65, 1281-9.
- (4) Thompson, J.E. et al. (1995) *Cell* 80, 573-82.
- (5) Whiteside, S.T. et al. (1997) *EMBO J* 16, 1413-26.
- (6) Traenckner, E.B. et al. (1995) *EMBO J* 14, 2876-83.
- (7) Scherer, D.C. et al. (1995) *Proc Natl Acad Sci USA* 92, 11259-63.
- (8) Chen, Z.J. et al. (1996) *Cell* 84, 853-62.
- (9) Senftleben, U. et al. (2001) *Science* 293, 1495-9.
- (10) Coope, H.J. et al. (2002) *EMBO J* 21, 5375-85.
- (11) Xiao, G. et al. (2001) *Mol Cell* 7, 401-9.

Entrez Gene ID #5970
UniProt ID #Q04206

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. 1% DMSO. Store at -20°C.

For product specific protocols please see the web page for this product at www.cellsignal.com.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry IC—Immunocytochemistry IF—Immunofluorescence F—Flow cytometry E—ELISA D—DELFIATM

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken X—Xenopus Z—zebra fish B—bovine All—all species expected
Species enclosed in parentheses are predicted to react based on 100% sequence homology.