

#4717 Store at -20C

NF- κ B1 p105 Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk Mi B Pg	Endogenous	120	Rabbit	#P19838	4790

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

NF- κ B1 p105 Antibody detects endogenous levels of total NF- κ B1 p105 protein. It does not cross-react with the p50 subunit or other NF- κ B family members.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids at the carboxy-terminus of human NF- κ B1 p105. Antibodies are purified by protein A and peptide affinity chromatography.

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). Following IKK-mediated phosphorylation of p105 NF- κ B1 at multiple sites (Ser921, 923, 927, and 932) on its carboxy-terminus, SCF β -TrCP mediated processing produces the 50 kDa active form p50 (12,13).

Background References

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5. Whiteside, S.T. et al. (1997) *EMBO J* 16, 1413-26.
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7. Scherer, D.C. et al. (1995) *Proc Natl Acad Sci USA* 92, 11259-63.
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10. Coope, H.J. et al. (2002) *EMBO J* 21, 5375-85.
11. Xiao, G. et al. (2001) *Mol Cell* 7, 401-9.
12. Heissmeyer, V. et al. (2001) *Mol Cell Biol* 21, 1024-35.
13. Orian, A. et al. (2000) *EMBO J* 19, 2580-91.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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