

NF- κ B1 p105/p50 (D7H5M) Rabbit mAb

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

Applications: W, IP, IHC-P, ChIP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 50 Active form. 120 Precursor	Source/Isotype: Rabbit IgG	UniProt ID: #P19838	Entrez-Gene Id: 4790
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Product Usage Information

For optimal ChIP results, use 10 μ l of antibody and 10 μ g of chromatin (approximately 4×10^6 cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:400 - 1:1600
Chromatin IP	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #78869.

Specificity/Sensitivity

NF- κ B1 p105/p50 (D7H5M) Rabbit mAb recognizes endogenous levels of total NF- κ B1 p105/p50 protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly415 of human NF- κ B p105/p50 protein.

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 B 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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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	W: Western Blotting IP: Immunoprecipitation IHC-P: Immunohistochemistry (Paraffin) ChIP: Chromatin IP
Cross-Reactivity Key	H: Human M: Mouse
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