Revision 1

Store at -20C

#13681

NF-κB1 p105/p50 (5D10D11) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	50 Active form, 120 Precursor	Mouse IgG2a	#P19838	4790

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

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

Specificity/Sensitivity

NF-κB1 p105/p50 (5D10D11) Mouse mAb recognizes endogenous levels of total NF-κB1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant fragment of human NF-κB1 protein expressed in *E. coli*.

Background

Transcription factors of the nuclear factor κB (NF-κB)/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-κB1 (p105/p50), and NF-κB2 (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-κB is sequestered in the cytoplasm by IκB inhibitory proteins (3-5). NF-κB-activating agents can induce the phosphorylation of IκB proteins, targeting them for rapid degradation through the ubiquitin-proteasome pathway and releasing NF-κB to enter the nucleus where it regulates gene expression (6-8). NIK and IKKα (IKK1) regulate the phosphorylation and processing of NF-κB2 (p100) to produce p52, which translocates to the nucleus (9-11).
Following IKK-mediated phosphorylation of p105 NF-κB at multiple sites (Ser921, 923, 927, and 932) on its carboxy-terminus, β-TrCP (SCF) mediated processing produces the 50 kDa active form p50 (12,13).

Background References

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4. Thompson, J.E. et al. (1995) *Cell* 80, 573-82.
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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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

Cross-Reactivity Key

H: Human

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