

NGF

rev. 06/02/16
Cat#: ET1606-29

Product Type: Recombinant rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat, Zebra fish

Applications: WB, ICC/IF, IHC

Molecular Wt.: 32 kDa

Description: Neurotrophins function to regulate naturally occurring cell death of neurons during development. The prototype neurotrophin is nerve growth factor (NGF), originally discovered in the 1950s as a soluble peptide promoting the survival of, and neurite outgrowth from, sympathetic ganglia. Three additional structurally homologous neurotrophic factors have been identified. These include brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3) and neurotrophin-4 (NT-4) (also designated NT-5). These various neurotrophins stimulate the in vitro survival of distinct, but partially overlapping, populations of neurons. The cell surface receptors through which neurotrophins mediate their activity have been identified. For instance, the Trk A receptor is the preferential receptor for NGF, but also binds NT-3 and NT-4. The Trk B receptor binds both BDNF and NT-4 equally well, and binds NT-3 to a lesser extent, while the Trk C receptor only binds NT-3.

Immunogen:

Recombinant protein.

Positive control:

NIH/3T3, HeLa, HepG2, mouse thymus tissue, mouse liver tissue, mouse brain tissue.

Subcellular location:

Secreted.

Database links:

SwissProt: P01138 (Human) P01139 (Mouse) P25427 (Rat)

Recommended Dilutions:

WB: 1:1,000-1:2,000 **ICC:** 1:50-1:200
IHC: 1:50-1:200

Storage Buffer:

1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction:

Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

Purity:

ProA affinity purified.

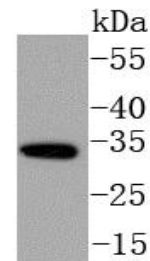


Fig1: Western blot analysis of NGF on HeLa cell lysates using anti-NGF antibody at 1/1,000 dilution.

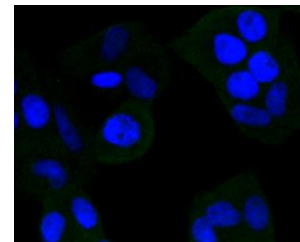


Fig2: ICC staining NGF in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

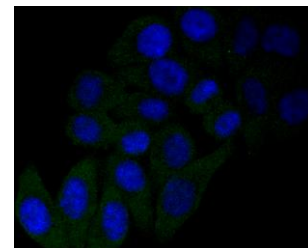


Fig3: ICC staining NGF in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish
B=bovine Dg=dog Pg=pig Sc=S.

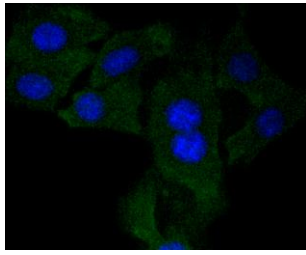


Fig4: ICC staining NGF in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

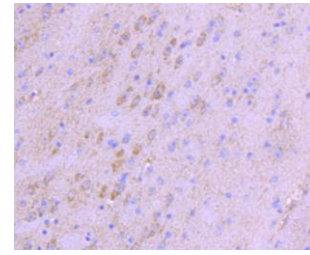


Fig6: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-NGF antibody. Counter stained with hematoxylin.

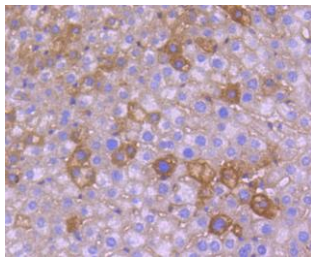


Fig5: Immunohistochemical analysis of paraffin-embedded mouse liver tissue using anti-NGF antibody. Counter stained with hematoxylin.

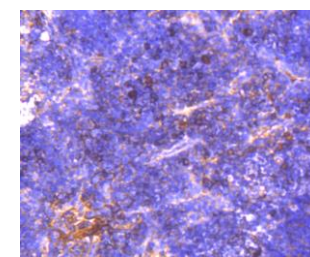


Fig7: Immunohistochemical analysis of paraffin-embedded mouse thymus tissue using anti-NGF antibody. Counter stained with hematoxylin.

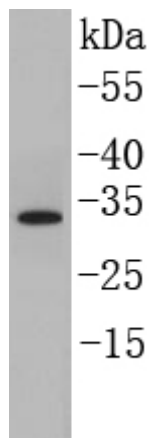


Fig8: Western blot analysis of NGF on zebrafish tissue lysates using anti-NGF antibody.

Background References

1. Moon HJ et al. Effects of secreted factors in culture medium of annulus fibrosus cells on microvascular endothelial cells: elucidating the possible pathomechanisms of matrix degradation and nerve in-growth in disc degeneration. *Osteoarthritis Cartilage* 22:344-54 (2014).
2. Vivas O et al. Nerve growth factor sensitizes adult sympathetic neurons to the proinflammatory peptide bradykinin. *J Neurosci* 34:11959-71 (2014).