Product name:	NGF (12T9) Rabbit Monoclonal Antibody
Cat number:	MABN14676
Conjugate:	Unconjugated
Size:	100µL
Clone:	Monoclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	A synthetic peptide of human NGF
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ICC/IF 1:100-1:200
Molecular Weight:	27kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

Nerve growth factor (NGF) is a small, secreted protein and member of the neurotrophin family of growth factors that promote neuronal cell survival and differentiation. Producing cells release NGF that bind and activate TrkA high affinity receptors to mediate NGF-driven signaling. NGF also binds to a low affinity p75 (NTR) receptors, which belong to the death receptor family. Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems (PubMed:14976160, PubMed:20978020). Extracellular ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades to regulate neuronal proliferation, differentiation and survival (PubMed:20978020) (Probable). The immature NGF precursor (proNGF) functions as ligand for the heterodimeric receptor formed by SORCS2 and NGFR, and activates cellular signaling cascades that lead to inactivation of RAC1 and/or RAC2, reorganization of the actin cytoskeleton and neuronal growth cone collapse. In contrast to mature NGF, the precursor form (proNGF) promotes neuronal apoptosis (in vitro) (By similarity). Inhibits metalloproteinase-dependent proteolysis of platelet glycoprotein VI (PubMed:20164177). Binds lysophosphatidylinositol and lysophosphatidylserine between the two chains of the homodimer. The lipid-bound form promotes histamine relase from mast cells, contrary to the lipid-free form (By similarity).