

#2046 Store at -20C

## NGF Antibody



**Cell Signaling**  
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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            | H           | Recombinant protein | 13        | Rabbit  | #P01138     | 4803            |

### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

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

### Specificity / Sensitivity

NGF Antibody detects recombinant NGF protein. It does not cross-react with other proteins.

### Species predicted to react based on 100% sequence homology:

Mouse

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr146 of human NGF.

### 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 (1). Producing cells release NGF that bind and activate TrkA high affinity receptors to mediate NGF-driven signaling. NGF also binds to low affinity p75 (NTR) receptors, which belong to the death receptor family (2). Although NGF has been classically described as favoring neuron survival and differentiation, NGF can promote apoptosis in cells that contain p75 (NTR) and lack TrkA. NGF can induce neuron death in a variety of neurodegenerative conditions, including Alzheimer's disease (3). Besides its neurotrophic actions, NGF has an effect on non-neuronal cells and may help mediate inflammation, angiogenesis, and stimulate breast cancer cell growth (4-6). NGF signaling is looking increasingly promising as potential drug targets for diseases.

### Background References

1. Lessmann, V. et al. (2003) *Prog Neurobiol* 69, 341-74.
2. Neet, K.E. and Campenot, R.B. (2001) *Cell Mol Life Sci* 58, 1021-35.
3. Lorigados-Pedre, L. and Bergado-Rosado, J. (2004) *Rev Neurol* 38, 957-71.
4. Frossard, N. et al. (2004) *Eur J Pharmacol* 500, 453-65.
5. Nico, B. et al. (2008) *Microvasc Res* 75, 135-41.
6. Descamps, S. et al. (2001) *J Biol Chem* 276, 17864-70.

### 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

### 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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