

## Rabbit Anti-GDNF antibody

SL1024R

**Product Name** GDNF

**Chinese Name** 胶质细胞源性神经营养因子抗体

**Alias** glial cell line derived neurotrophic factor; Astrocyte derived trophic factor 1; Astrocyte derived trophic factor; ATF 1; ATF 2; ATF1; ATF2; Glial cell derived neurotrophic factor; Glial derived neurotrophic factor; HFB1 GDNF; GDNF\_HUMAN; Atf; gdnf; Glial Cell Line Derived Neurotrophic Factor; Glial cell line-derived neurotrophic factor; Glial derived neurotrophic factor; hGDNF; HSCR3.

**Research Area** Neurobiology Apoptosis Growth factors and hormones

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human Mouse Rat

**Applications** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:200-800 (Paraffin sections need antigen repair)  
not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 15kDa

**Cellular localization** Secretory protein

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human GDNF: 121-211/211

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** Human,Mouse,Rat1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat3% Proclin300 and 50% Glycerol.

**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention** This product as supplied is intended for research use only, not for use in human,

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therapeutic or diagnostic applications.

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Neurobiology. Neurotrophins. Neuroscience.

This gene encodes a highly conserved neurotrophic factor. The recombinant form of this protein was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. The encoded protein is processed to a mature secreted form that exists as a homodimer. The mature form of the protein is a ligand for the product of the RET (rearranged during transfection) protooncogene. In addition to the transcript encoding GDNF, two additional alternative transcripts encoding distinct proteins, referred to as astrocyte-derived trophic factors, have also been described. Mutations in this gene may be associated with Hirschsprung disease.

**Function:**

Neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake.

**Subunit:**

Homodimer; disulfide-linked.

**Product  
Detail**

**Subcellular Location:**

Secreted.

**Tissue Specificity:**

In the brain, predominantly expressed in the striatum with highest levels in the caudate and lowest in the putamen. Isoform 2 is absent from most tissues except for low levels in intestine and kidney. Highest expression of isoform 3 is found in pancreatic islets. Isoform 5 is expressed at very low levels in putamen, nucleus accumbens, prefrontal cortex, amygdala, hypothalamus and intestine. Isoform 3 is up-regulated in the middle temporal gyrus of Alzheimer disease patients while isoform 2 shows no change.

**DISEASE:**

Defects in GDNF may be a cause of Hirschsprung disease type 3 (HSCR3) [MIM:613711]. In association with mutations of RET gene, defects in GDNF may be involved in Hirschsprung disease. This genetic disorder of neural crest development is characterized by the absence of intramural ganglion cells in the hindgut, often resulting in intestinal obstruction.

Defects in GDNF are a cause of congenital central hypoventilation syndrome (CCHS) [MIM:209880]; also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible

ventilatory and arousal responses to hypercapnia and hypoxemia.

**Similarity:**

Belongs to the TGF-beta family. GDNF subfamily.

**SWISS:**

P39905

**Gene ID:**

2668

**Database links:**

[Entrez Gene: 2668](#) Human

[Entrez Gene: 14573](#) Mouse

[Entrez Gene: 25453](#) Rat

[Omim: 600837](#) Human

[SwissProt: P39905](#) Human

[SwissProt: P48540](#) Mouse

[SwissProt: Q07731](#) Rat

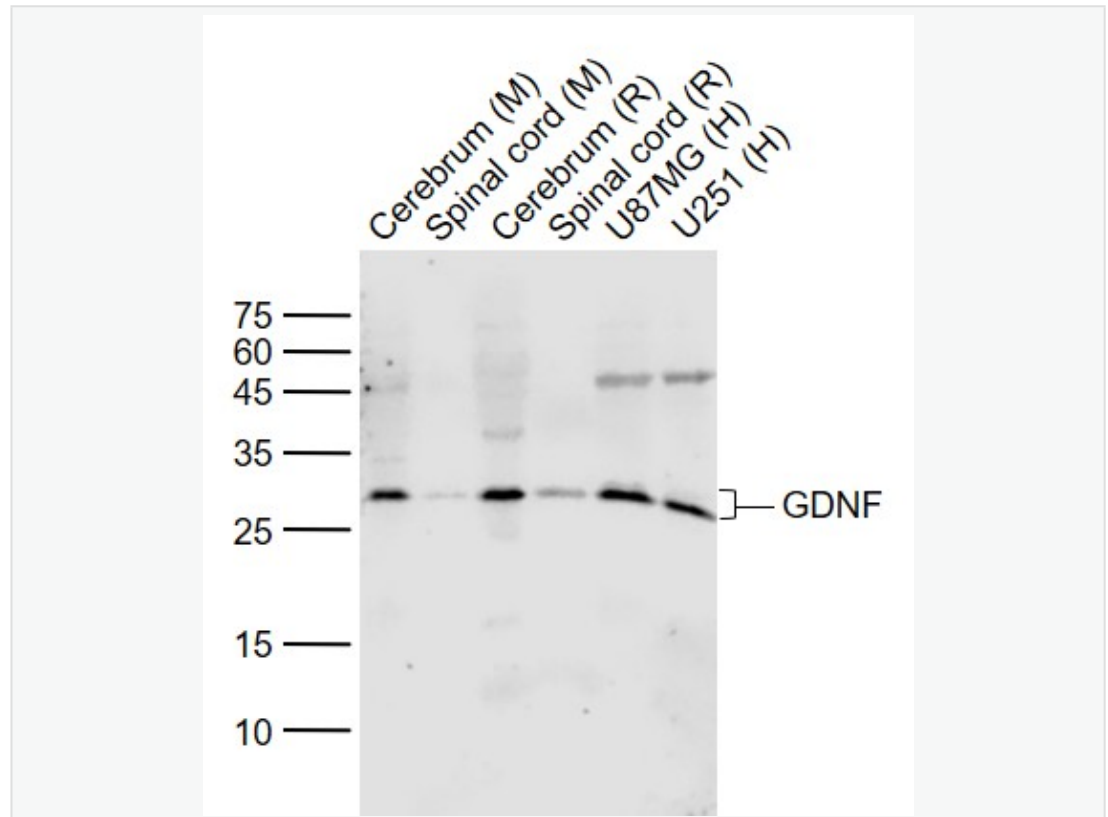
[Unigene: 248114](#) Human

[Unigene: 4679](#) Mouse

[Unigene: 53970](#) Rat

Neurobiology 相关蛋白

**Product  
Picture**



**Sample:**

Lane 1: Cerebrum (Mouse) Lysate at 40 ug

Lane 2: Spinal cord (Mouse) Lysate at 40 ug

Lane 3: Cerebrum (Rat) Lysate at 40 ug

Lane 4: Spinal cord (Rat) Lysate at 40 ug

Lane 5: U87MG (Human) Cell Lysate at 30 ug

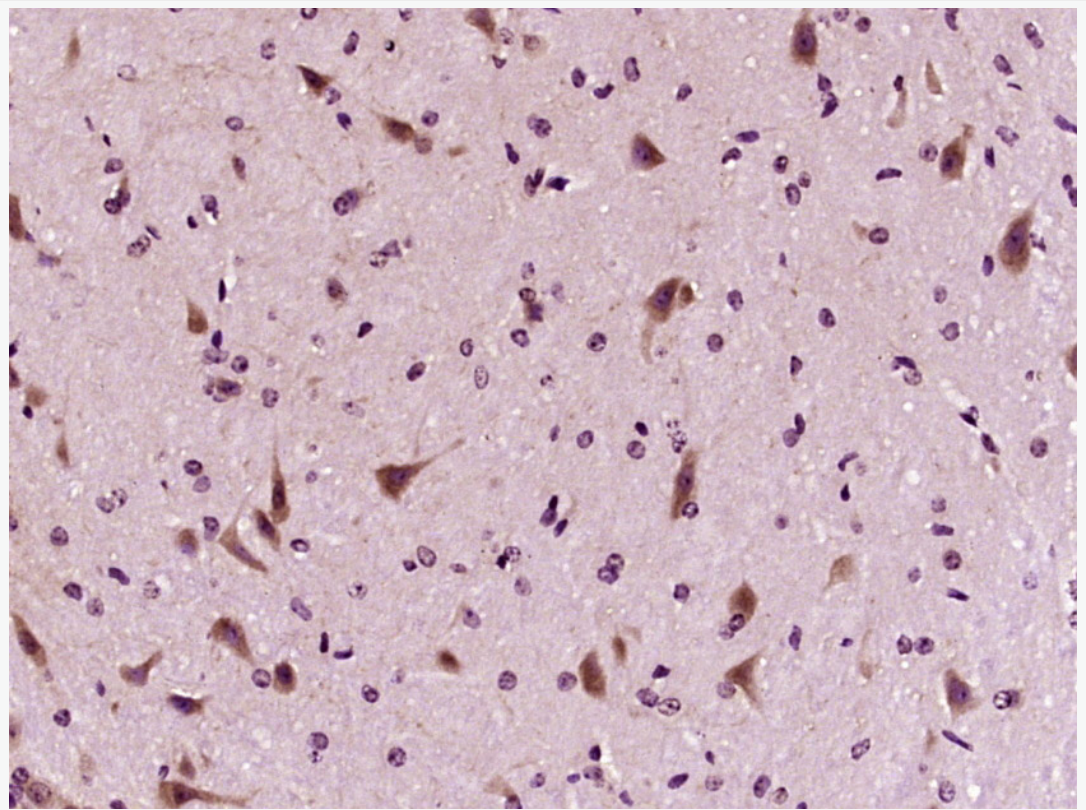
Lane 6: U251 (Human) Cell Lysate at 30 ug

Primary: Anti-GDNF (SL1024R) at 1/1000 dilution

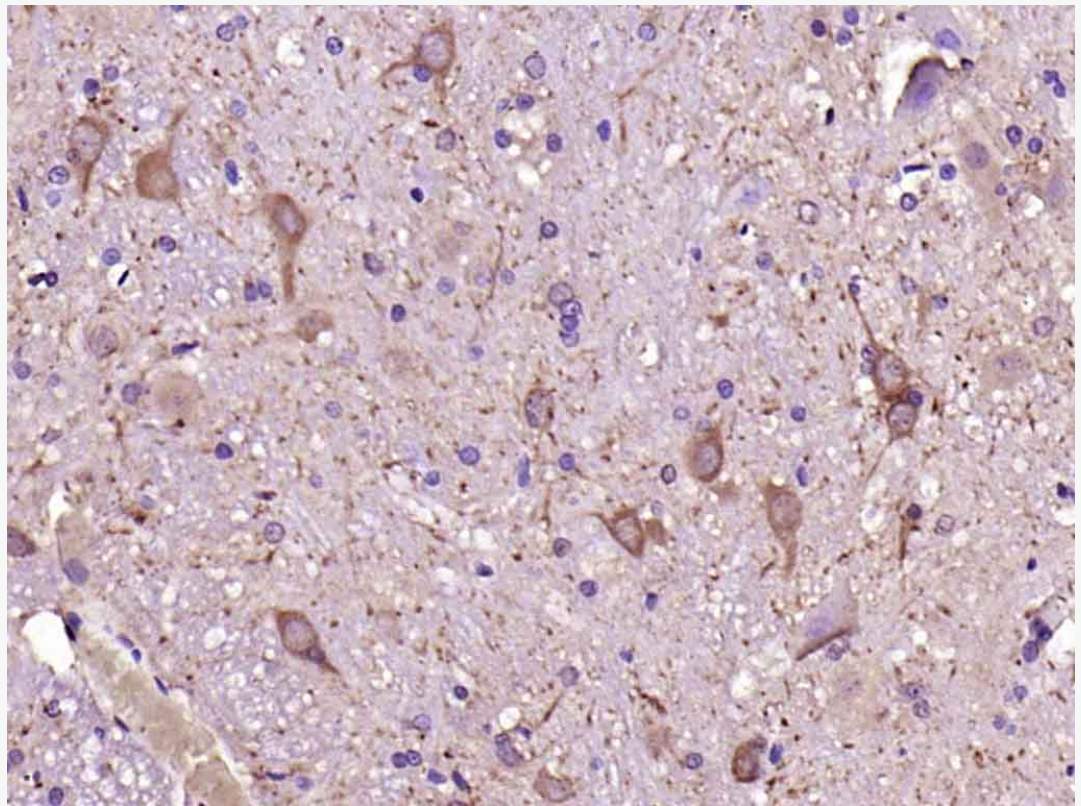
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 25/20 kD

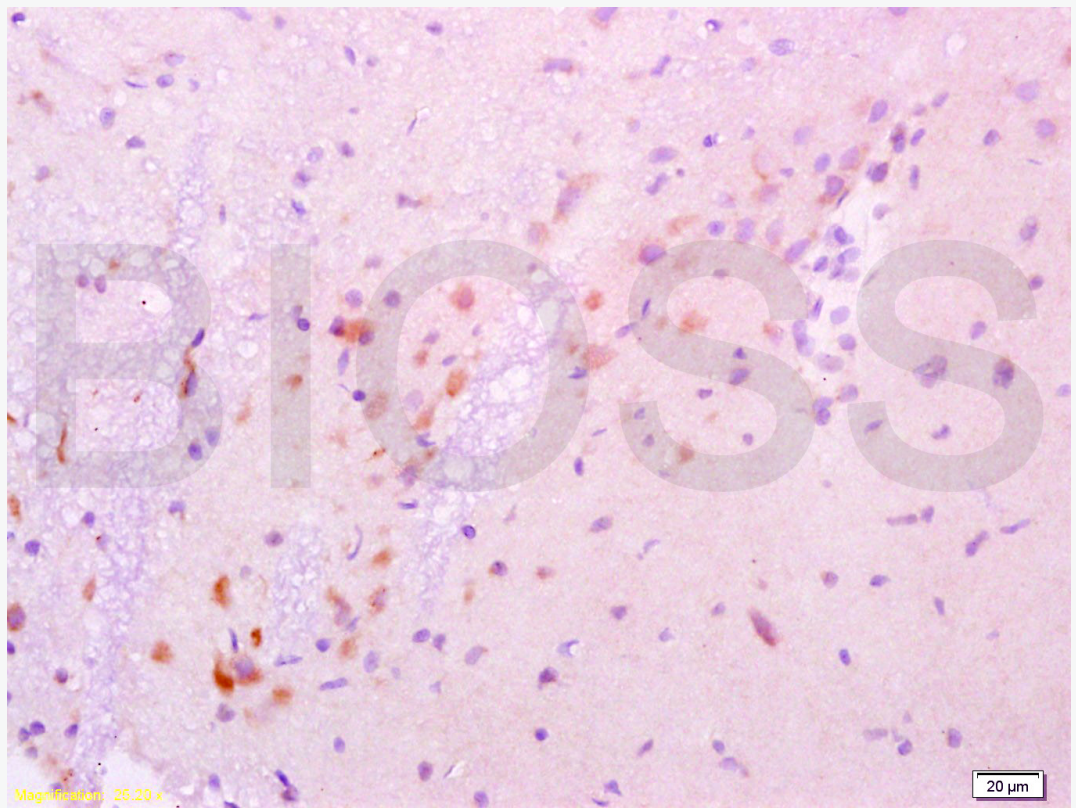
Observed band size: 28 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GDNF) Polyclonal Antibody, Unconjugated (SL1024R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GDNF) Polyclonal Antibody, Unconjugated (SL1024R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( Human,Mouse,Rat1M, pH 6.0 ), Boiling bathing  
for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min;  
Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-GDNF Polyclonal Antibody, Unconjugated(SL1024R) 1:200,  
overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and  
DAB(C-0010) staining