

Rabbit Anti-GDNF Receptor alpha 2 antibody

SL0054R

Product Name GDNF Receptor alpha 2

Chinese Name 胶质细胞源性神经营养因子受体 α 2 抗体

Alias GDNF family receptor alpha-2; GDNF Receptor α 2; GDNF receptor beta; GDNFR beta; GDNFR-beta; GDNFRB; GFR alpha 2; GFRA 2; GFRA2; GFR alpha-2; Glial cell line derived neurotrophic factor family receptor alpha2b; Glial cell line derived neurotrophic factor receptor beta; Neurturin receptor alpha; NRTNR alpha; NRTNR-alpha; NTNR alpha; NTNR-alpha; NTNRA; PI linked cell surface accessory protein; RET ligand 2; RETL 2; RETL2; TGF beta related neurotrophic factor receptor 2; TRN receptor GPI anchored; TRNR 2; TRNR2; GFRA2_HUMAN; GDNF family receptor alpha-2; GDNF receptor alpha-2; Short=GDNFR-alpha-2; GFR-alpha-2; Neurturin receptor alpha; TGF-beta-related neurotrophic factor receptor 2.

Research Area Developmental biology Neurobiology The cell membrane 受体

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human Mouse Rat(predicted:Chicken Dog Cow Horse)

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 47kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human GDNF Receptor alpha 2: 301-360/464

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution

Human,Mouse,Rat(predicted:Chicken,Dog,Cow,Horse)1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat(predicted:Chicken,Dog,Cow,Horse)3% 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, therapeutic or diagnostic applications.

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Product Detail

Glial cell line-derived neurotrophic factor (GDNF) and neurturin (NTN) are two structurally related, potent neurotrophic factors that play key roles in the control of neuron survival and differentiation. The protein encoded by this gene is a member of the GDNF receptor family. It is a glycosylphosphatidylinositol(GPI)-linked cell surface receptor for both GDNF and NTN, and mediates activation of the RET tyrosine kinase receptor. This encoded protein acts preferentially as a receptor for NTN compared to its other family member, GDNF family receptor alpha 1. This gene is a candidate gene for RET-associated diseases. Multiple transcript variants encoding different isoforms have been found for this gene. Members of the glial cell line-derived neurotrophic factor(GDNF) family, including GDNF and neurturin (NTN),play key roles in the control of vertebrate neuron survivaland differentiation. Physiological responses to NTN requirethe presence of a novel glycosylphosphadidylinositollinked protein NTNRA, which is a cell surface receptor forNTN. The cDNAs encoding NTNRA from human, rat,chicken, and mouse have been cloned recently. NTNRA was also termed GDNFRb, Ret ligand 2 (RETL2)or TGF-b-related neurotrophic factor receptor 2 (TrnR2) and nominated as GFRA-2 recently. GFRA-2 binds NTN and mediates activation of RET receptor tyrosine kinase by both NTN and GDNF. Thus, NTN, GFRA-2, and the Ret PTK form a complex to transduce NTN signal andto mediate NTN function.

Function:

Receptor for neurturin. Mediates the NRTN-induced autophosphorylation and activation of the RET receptor. Also able to mediate GDNF signaling through the RET tyrosine kinase receptor.

Subcellular Location:

Cell membrane; Lipid-anchor, GPI-anchor.

Tissue Specificity:

Isoform 1 is found in both brain and placenta.

Similarity:

Belongs to the GDNFR family.

SWISS:

O00451

Gene ID:
2675

Database links:

[Entrez Gene: 2675](#) Human

[Entrez Gene: 14586](#) Mouse

[Entrez Gene: 25136](#) Rat

[Omim: 601956](#) Human

[SwissProt: O00451](#) Human

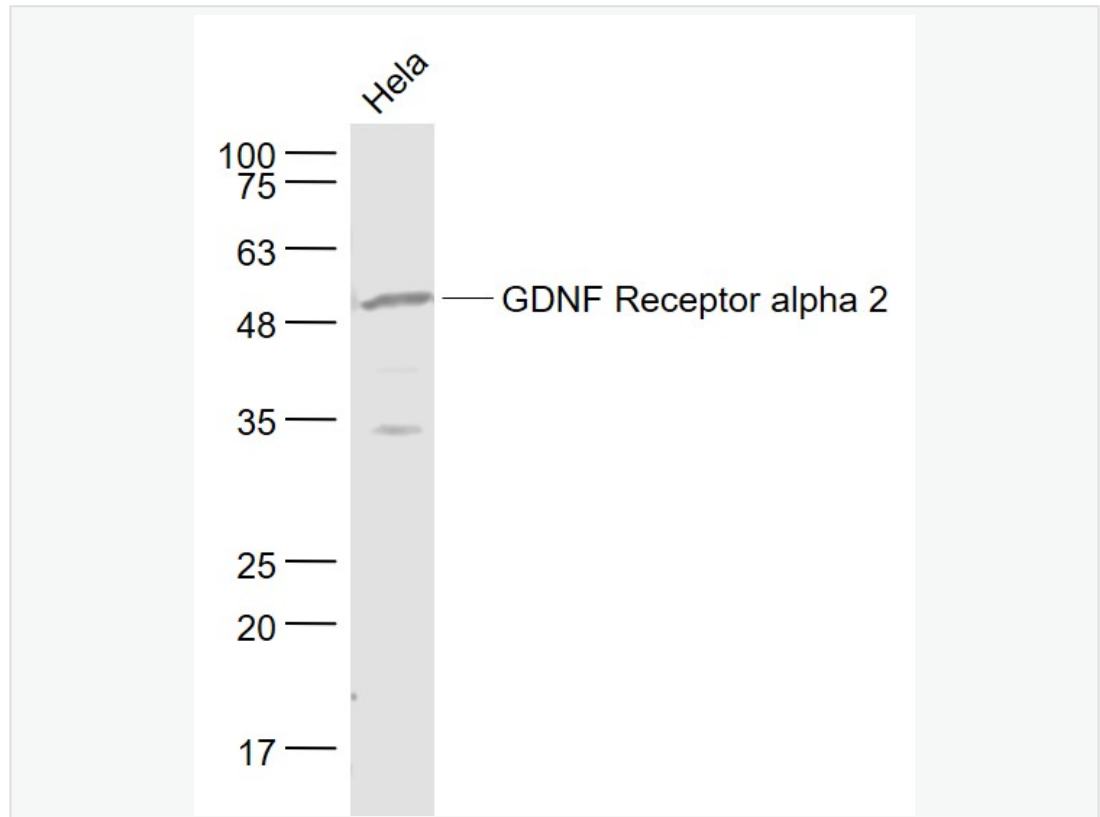
[SwissProt: O08842](#) Mouse

Neurobiology 相关蛋白 (Neurobiology)

胶质细胞源性神经营养因子(GDNF)是 TGF- β 家族的一个新亚族,该亚族还有新发现的三个成员: Neurturin(NTN)、Persephin(PSP)和 Artemin(ART),它们均不同程度地对多巴胺神经元、脊髓前角运动神经元、背根神经节、颈上神经节以及肾等非神经元细胞都具有生长促进作用。研究表明胶质细胞系源性神经营养因子,主要用于 PD 的研究。

GDNF 的受体是多成分的复合物,它是由固定于质膜外层的糖基磷脂酰肌醇(GPI)被称为 GDNFR α 和酪氨酸激酶 RET 蛋白组成。GDNFR α 为其配体结合亚单位,而 RET 则是 GDNF 的功能性受体亚单位,即 GDNF 特异地结合于其受体的 GDNFR α 上,再激活 RET 的酪氨酸磷酸化传导其信号,影响细胞的活性,发挥其生物学效应。目前,又克隆出了人与大鼠的 GDNFR β 序列,与 GDNFR α 具有 47% 的同源性。GDNFR β mRNA 在脊髓、DRG 和发育中的周围神经上也均有表达。

**Product
Picture**



Sample:

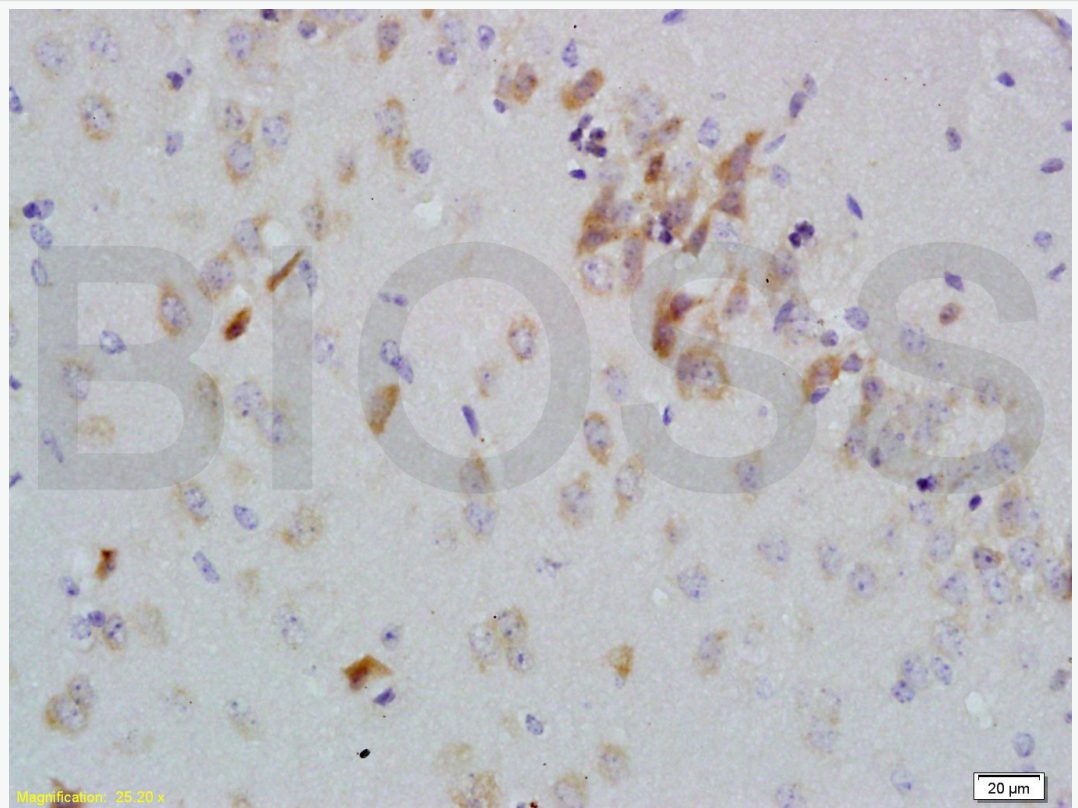
HeLa(Human) Cell Lysate at 30 ug

Primary: Anti- GDNF Receptor alpha 2 (SL0054R) at 1/1000 dilution

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

Predicted band size: 47 kD

Observed band size: 52 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer

(Human,Mouse,Rat(predicted:Chicken,Dog,Cow,Horse)1M, 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-Receptor-alpha-2 Polyclonal Antibody,

Unconjugated(SL0054R) 1:200, overnight at 4°C, followed by conjugation to the
secondary antibody(SP-0023) and DAB(C-0010) staining