

**GFR alpha 1 Antibody**  
**Catalog # ASC10018****Specification**

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**GFR alpha 1 Antibody - Product Information**

Application	WB, IHC-P, E
Primary Accession	<a href="#">P56159</a>
Other Accession	<a href="#">P56159</a> , <a href="#">20141405</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	51 kDa KDa
Application Notes	GFR alpha 1 antibody can be used for detection of GFR alpha 1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 1 µg/mL.

**GFR alpha 1 Antibody - Additional Information**

Gene ID 2674

**Other Names**

GFR alpha 1 Antibody: GDNFR, RET1L, RETL1, TRNR1, GDNFRA, GFR-ALPHA-1, GDNF family receptor alpha-1, RET ligand 1, GDNF receptor alpha-1, GDNF family receptor alpha 1

**Target/Specificity**

GFRA1; GFR alpha 1 antibody is predicted to not cross-react with other members of the GFR alpha family of proteins.

**Reconstitution & Storage**

GFR alpha 1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

GFR alpha 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**GFR alpha 1 Antibody - Protein Information****Name** GFRA1**Synonyms** GDNFRA, RETL1, TRNR1**Function**

Coreceptor for GDNF, a neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake

(PubMed:<a href="http://www.uniprot.org/citations/10829012" target="\_blank">10829012</a>, PubMed:<a href="http://www.uniprot.org/citations/31535977" target="\_blank">31535977</a>). GDNF-binding leads to autophosphorylation and activation of the RET receptor (PubMed:<a href="http://www.uniprot.org/citations/31535977" target="\_blank">31535977</a>).

#### Cellular Location

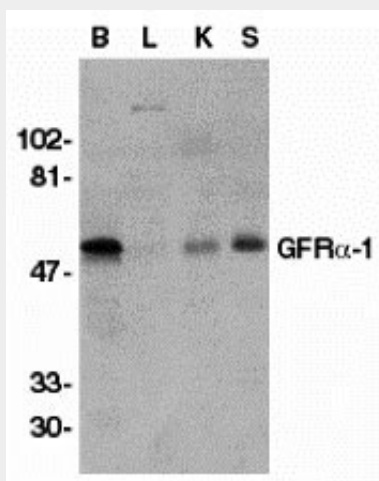
Cell membrane {ECO:0000250|UniProtKB:Q62997}; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:Q62997}. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:Q62997}. Endosome {ECO:0000250|UniProtKB:Q62997}. Endosome, multivesicular body {ECO:0000250|UniProtKB:Q62997}. Note=Localizes mainly to the plasma membrane. In the presence of SORL1, shifts to vesicular structures, including trans-Golgi network, endosomes and multivesicular bodies {ECO:0000250|UniProtKB:Q62997}

#### GFR alpha 1 Antibody - Protocols

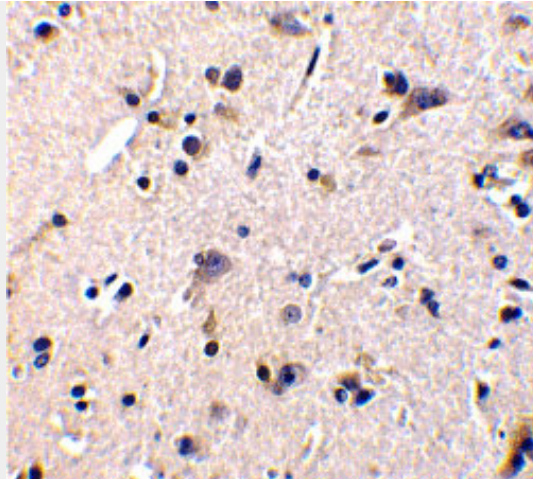
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### GFR alpha 1 Antibody - Images



Western blot analysis of GFR alpha 1 in crude membrane fractions of human brain (B), liver (L), kidney (K), and spleen (S), respectively, with GFR alpha 1 antibody at 1 µg/mL.



Immunohistochemistry of GFR alpha 1 in human brain tissue with GFR alpha 1 antibody at 1  $\mu$ g/mL.

#### **GFR alpha 1 Antibody - Background**

GFR alpha 1 Antibody: Glial cell line-derived neurotrophic factor (GDNF) is a potent survival factor for central and peripheral neurons and is essential for the development of kidneys and the enteric nerves system. Physiological responses to GDNF require the presence of a novel glycosylphosphatidylinositol linked protein GDNFRalpha, which is a cell surface receptor for GDNF. The cDNAs encoding GDNFRalpha from human, rat, chicken and mouse have been cloned recently. GDNFRalpha was also termed Ret ligand 1 (RETL1) or TGF-beta-related neurotrophic factor receptor 1 (TrnR1) and nominated as GFR $\alpha$ -1 recently. GFR $\alpha$ -1 binds GDNF specifically and mediates activation of the Ret protein tyrosine kinase (PTK). Thus, GDNF, GFR $\alpha$  and the Ret PTK form a complex to transduce GDNF signal and to mediate GDNF function.

#### **GFR alpha 1 Antibody - References**

Jing S, Wen D, Yu Y, et al. GDNF-induced activation of the Ret protein tyrosine kinase is mediated by GDNFR-a, a novel receptor for GDNF. *Cell* 1996; 85:1113-24.  
Treanor JJS, Goodman L, Sauvage FD, et al. Characterization of a multicomponent receptor for GDNF. *Nature* 1996;82:80-83.  
Sanicola M, Hession C, Worley D, et al. Glial cell line-derived neurotrophic factor-dependent RET activation can be mediated by two different cell-surface accessory proteins. *Proc. Natl. Acad. Sci. USA* 1997; 94:6238-43.  
Buj-Bello A, Adu J, Pinon LG, et al. Neurturin responsiveness requires a GPI-linked receptor and the Ret receptor tyrosine kinase. *Nature* 1997; 387:721-4