

GFR Alpha-1/GFRA1 Active Protein | GFRA1 active protein

GFR Alpha-1/GFRA1 Protein, Human, Recombinant (hFc Tag)

CATALOG #
AAA257871

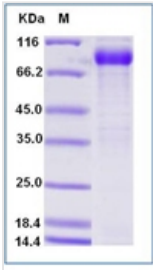
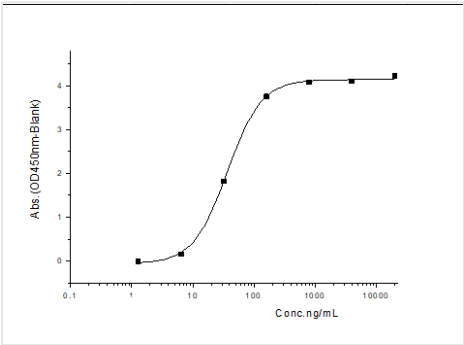
HOST
HEK293 Cells

PRODUCT SYNONYMS

GFR Alpha-1/GFRA1; GFR Alpha-1/GFRA1 Protein; Human; Recombinant (hFc Tag); Human GFR Alpha-1/GFRA1 Protein (Fc Tag); GDNFR Protein; GDNFRA Protein; GFR-ALPHA-1 Protein; RET1L Protein; RETL1 Protein; TRNR1 Protein; GDNF family receptor alpha 1; GFRA1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Ser42 4
Species	Human
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Gly 25
Tag	C-human IgG1-Fc
Protein Construction	A DNA sequence encoding the human GFRA1 (NP_001138925.1)(Met1-Ser424) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized human GFRA1-Fc at 10ug/mL (100uL/well) can bind GDNF/Biotin. The EC50 of human GDNF/Biotin is 20-50ng/mL.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data

Measured by its binding ability in a functional ELISA. Immobilized human GFRA1-Fc at 10 ug/mL (100 uL/well) can bind GDNF/Biotin, the EC50 of human GDNF/Biotin is 20-50 ng/mL.

ADDITIONAL INFORMATION

Related Product Information for GFRA1 active protein

Background: Glial cell line derived neurotrophic factor (GDNF) Family Receptor Alpha 1 (GFRA1) 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. GFRA1 is a potent survival factor for central and peripheral neurons, and is essential for the development of kidneys and the enteric nervous system. Glial cell line-derived neurotrophic factor (GDNF) and neurturin (NTN) are its binding ligand which are two structurally related, potent neurotrophic factors that play key roles in the control of neuron survival and differentiation. GDNF promotes the formation of a physical complex between GFRA/GDNFRa and the orphan tyrosin kinase receptor Ret, thereby inducing its tyrosine phosphorylation. The RET is a receptor tyrosine kinase representing the signal-transducing molecule of a multisubunit surface receptor complex for the GDNF, in which GFRA/GDNFRa acts as the ligand-binding component. GDNF, a distantly related member of the transforming growth factor-beta (TGF- α) superfamily, and its receptor components: GFRA1, Ret and neural cell adhesion molecule (NCAM) have been recently reported to be expressed in the testis and to be involved in the proliferation regulation of immature Sertoli cells.

References

Jing S, et al. (1997) GFRalpha-2 and GFRalpha-3 are two new receptors for ligands of the GDNF family. J Biol Chem. 272(52): 33111-7. Jing S, et al. (1996) GDNF-induced activation of the ret protein tyrosine kinase is mediated by GDNFR-alpha, a novel receptor for GDNF. Cell. 85(7):1113-24. Treanor JJ, et al. (1996) Characterization of a multicomponent receptor for GDNF. Nature. 382(6586): 80-3.

NCBI AND UNIPROT INFORMATION

NCBI GI #	224282178
NCBI GeneID	2674
NCBI Accession #	NP_001138925.1
NCBI GenBank Nucleotide #	NM_001145453.1
UniProt Accession #	P56159; O15507; O43912; A8KA21
Molecular Weight	51,456 Da
NCBI Official Full Name	GDNF family receptor alpha-1 isoform b preproprotein
NCBI Official Synonym Full Names	GDNF family receptor alpha 1
NCBI Official Symbol	GFRA1
NCBI Official Synonym Symbols	GDNFR; RET1L; RETL1; TRNR1; GDNFRA; GFR-ALPHA-1
NCBI Protein Information	GDNF family receptor alpha-1; RET ligand 1; GDNFR-alpha-1; GDNF receptor alpha-1; GPI-linked anchor protein; PI-linked cell-surface accessory protein; TGF-beta related neurotrophic factor receptor 1; TGF-beta-related neurotrophic factor receptor 1; Glial
UniProt Protein Name	GDNF family receptor alpha-1

UniProt Gene Name	GFRA1
UniProt Synonym Gene Names	GDNFRA; RETL1; TRNR1; GDNF receptor alpha-1; GDNFR-alpha-1; GFR-alpha-1
UniProt Entry Name	GFRA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/gfr-alpha-1-gfra1/257871>