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Datasheet for ABIN7195908
GFRA1 Protein (AA 1-424) (His tag)

Overview

Quantity:	100 µg
Target:	GFRA1
Protein Characteristics:	AA 1-424
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This GFRA1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human GFRA1/GDNFRA Protein (aa 1-424, His Tag)(Active)
Sequence:	Met 1-Ser 424
Characteristics:	A DNA sequence encoding the human GFRa1 without the propeptide (NP_665736.1) (Met 1-Ser 424) was fused with the a polyhistidine tag at the C-terminus.
Purity:	> 98 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	1. Measured in a cell proliferation assay using SH-SY5Y human neuroblastoma cells. The ED50 for this effect is typically 0.2-1 µg/mL in the presence of 40 ng/mL Recombinant Human GDNF.2. Measured by its ability to bind human GDNF (native) in functional ELISA.

Target Details

Target:	GFRA1
Alternative Name:	GFRA1/GDNFRA (GFRA1 Products)
Background:	<p>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-β (TGF-β) 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.</p> <p>Synonym: GDNF Family Receptor Alpha-1; GDNF Receptor Alpha-1; GDNFR-Alpha-1; GFR-Alpha-1; RET Ligand 1; TGF-Beta-Related Neurotrophic Factor Receptor 1; GFRA1; GDNFRA; RETL1; TRNR1</p>
Molecular Weight:	46 kDa
NCBI Accession:	NP_665736

Application Details

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Handling

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.