Catalog Number: PKSM040827



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Synonyms	AU042498	
Species	Mouse	
Expression Host	HEK293 Cells	
Sequence	Met 1-Ser 425	
Accession	AAB86600.1	
Calculated Molecular Weight	46.3 kDa	
Observed molecular weight	55-60 kDa	
Tag	C-His	
Bioactivity	 Measured in a cell proliferation assay using SH-SY5Y human neuroblastoma cells. The ED50 for this effect is typically 0.3-1. 5 μg/mL in the presence of 40 ng/mL Recombinant Human GDNF. Measured by its ability to bind with human GDNF in a functional ELISA. 	
Properties		
Purity	> 98 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. 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.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	
Data		

KDa	MK	R
116		1 3 3 4
66.2	-	-
45.0	-	
35.0	-	
25.0	-	•
18.4 14.4	-	

> 98 % as determined by reducing SDS-PAGE.

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

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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- \hat{a}) 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.

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