## Recombinant Human GFRA1/GDNFRA Protein (aa 25-429, His Tag)

Catalog Number: PKSH033670



Description			
Species	Human		
Mol_Mass	46.3 kDa		
Accession	P56159-2		
Bio-activity	Not validated for activity		
Properties			
Purity	> 95 % as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU per µg 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 $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.		
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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			

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

kDa 120 90	MK	R
90 60	1	
40	-	
30		
20		
14	-	-

> 95 % as determined by reducing SDS-PAGE.

## Background

Glial Cell Line-Derived Neurotrophic Factor Family Receptor  $\alpha$ -1 (GDNFR $\alpha$ 1) is a glycosylphosphatidylinositol (GPI) linked cell surface protein belonging to GDNF-family receptor  $\alpha$  subtype which consists of at least four members. GFR $\alpha$ land GFR $\alpha$ 2 are the cognate co-receptor for the neurotrophic factor neurturin mediating the NRTN-induced autophosphorylation and activation of the RET tyrosine kinase receptor. Soluble GFR $\alpha$ s released enzymatically from the cell surface by phosphatidylinositol phospholipase C, as well as recombinantly produced soluble GFR $\alpha$ 1, can also bind with high affinity to GDNF and trigger the activation of Ret tyrosine kinase. Human GFR $\alpha$ 1 shares 93% amino acid identity with mouse GFR $\alpha$ 1. The expression of the various GFR $\alpha$ s are differentially regulated in the central and peripheral nervous system, suggesting complementary roles for the GFR $\alpha$ s in mediating the activities of the GDNF family of neurotrophic factors.

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