



Recombinant Protein Technical Manual

**Recombinant Mouse GFRA2/GFR α 2/GDNFRB
Protein (His Tag)
RPES4275**

Product Data:

Product SKU: RPES4275

Size: 100 μ g

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_032141.2

Protein Information:

Molecular Mass: 48.5 kDa

AP Molecular Mass: 75 kDa

Tag: C-His

Bio-activity:

Purity: > 85 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per μ g of the protein as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Gfra2, GFR alpha 2, GFR alpha-2

Immunogen Information:

Sequence: Met 1-Ser 441

Background:

GFRA2 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. GFRA2 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. Experiments have improved that GFRA2 genetic variants and age may play a role in Tardive dyskinesia (TD) susceptibility, but further work is required to confirm these findings.