

# Recombinant Protein Technical Manual Recombinant Human GFRRA2 Protein (His Tag)

**RPES4146** 

#### **Product Data:**

**Product SKU:** RPES4146 **Size:** 10μg

Species: Human Cells

Uniprot: NP\_001486.4

### **Protein Information:**

Molecular Mass: 47.8 kDa

AP Molecular Mass: 80 kDa

Tag: C-6His

**Bio-activity:** 

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:**  $< 1.0 \text{ EU per } \mu\text{g}$  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 a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

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

**Application:** 

**Synonyms:** GDNF Family Receptor Alpha-2; GDNF Receptor Alpha-2; GDNFR-Alpha-2; GFR-

Alpha-2; GDNF Receptor Beta; GDNFR-Beta; Neurturin Receptor Alpha; NRTNR-Alpha; NTNR-Alpha; RET Ligand 2; TGF-Beta-Related Neurotrophic Factor Receptor

2; GFRA2; GDNFRB; RETL2; TRNR2

## Immunogen Information:

Sequence: Ser22-Ser441

## Background:

Members of the glial cell line-derived neurotrophic factor (GDNF) family, including GDNF and Neurturin, play key roles in the control of vertebrate neuronal survivial and differentiation. GDNF is a glycosylated, disulfide-bonded homodimer that is distantly related to the TGF superfamily of growth factors. Three receptors for these factors,  $GFR\alpha$ ,  $GFR\alpha$ -2, and  $GFR\alpha$ -3 have been identified. The receptors do not contain transmembrane domains and are attached to the cell membrane by glycosyl-phosphoinositol linkage. Both  $GFR\alpha$  and  $GFR\alpha$ -2 have been shown to mediate the GDNF-dependent and Neurturin-dependent phosphorylation and activation of the tyrosine kinase Ret. GFR-3 is expressed only during development.  $GFR\alpha$ -2 binds Neurturin and mediates activation of RET receptor tyrosine kinase by both Neurturin and GDNF.