

# Recombinant human GFR alpha-1 protein

Catalog Number: ATGP4154

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

25-424aa

### UniProt No.

P56159

### NCBI Accession No.

NP\_665736.1

### Alternative Names

GDNF family receptor alpha-1 isoform b, GDNF receptor alpha-1, GDNF R alpha-1, GFR alpha1, GFR-ALPHA-1, GFRa-1, GFRalpha-1, GFRA1, GDNFR, GDNFRA, RET1L, RETL1, TRNR1, RHDA4, RET ligand, TGF-beta-related neurotrophic factor receptor 1

## PRODUCT SPECIFICATION

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### Molecular Weight

70.8 kDa (633aa)

### Concentration

0.5 mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its binding ability in a functional ELISA with Human GDNF (CAT# ATGP3942). The ED50 range  $\leq$  50 ng/ml.

### Tag

hIgG-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

GFR alpha-1, also known as GDNF family receptor alpha-1, belongs to the GDNFR family. It is a glycosylphosphatidylinositol (GPI)-linked receptor found on the cell surface, acting as a receptor for both GDNF and NTN and function as neurotrophic factors for a variety of neuronal populations in the central and peripheral nervous systems. It bind GDNF strongly and activate RET tyrosine kinase and is also essential for the development of kidneys and the enteric nervous system. Recombinant human GFR alpha-1, fused to hlgG-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

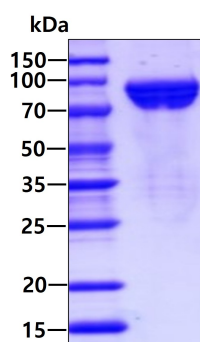
DRLDCVKASD QCLKEQSCST KYRTLQCV A GKETNFSLAS GLEAKDEC RS AMEALKQKSL YNCRCKRGMK KEKNCLRIYW SMYQSLQGN D LLEDSPYEPV NSRLSDIFRV VPFISVEHIP KGNNCLDAK ACNLDDICKK YRSAYITPCT TSVSNDVCNR RKCHKALRQF FDKVPAKHSY GMLFCSCRD I ACTERRRQTI VPVCSYEERE KPNCLNLQDS CKTNYICRSR LADFFTNCQP ERSVS SCLK ENYADCLL AY SGLIGTVMTP NYIDSSSL SV APWCDCS NSG NDLEECLKFL NFFKDNTCLK NAIQAFGNGS DVTVWQPAFP VQTTTATTTT ALRVKNKPLG PAGESNEIPT HVLPPCANLQ AQKLKSNVSG NTHLCISNGN YEKEGLGASS <LEPKSCDKTH TCPPCPAPEL LGGPSVFLFP PKPKDTLMIS RTPEVTCVVV DVSHEDPEVK FNWYVDGVEV HNAKTKPREE QYNSTYRVVS VLTVLHQDWL NGKEYKCKVS NKALPAPIEK TISKAKGQPR EPQVYTLPPS RDELTKNQVS LTCLVKGFYP SDIAVEWESN GQPENNYKTT PPVLDS DGSF FLYSKLTVDK SRWQQGNVFS CSV MHEALHN HYTQKSL SLS PGK>

### General References

- Thompson, J. et al. (1998) Mol. Cell Neurosci. 11:117-126.  
Baloh, R.H. et al. (1998) Proc. Natl. Acad. Sci. USA 95:5801-5806.  
Jing S, et al. (1996). Cell. 85:1113-1124.  
Treanor JJ, et al. (1996). 382: 80-83.  
Jing S, et al. (1997). J Biol Chem. 272: 33111-33117.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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Human GDNF (CAT# ATGP3942) is coated at 0.5 ug/ml (100 ul/well) can bind Human GFR alpha-1. The ED50 range  $\leq$  50 ng/ml.

