

Recombinant Human Mature GDNF Protein

Catalog No.: RP01313 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	2668	P39905

Tags

C-His

Synonyms

GDNF;ATF;ATF1;ATF2;HFB1-GDNF;HSCR3

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 1.0 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Glial cell line-derived neurotrophic factor(GDNF) is an important member of the GDNF family of ligands(GFL). The GDNF family of ligands is comprised by four neurotrophic factors: glial cell line-derived neurotrophic factor (GDNF), neurturin (NRTN), artemin (ARTN), and persephin (PSPN). It has been found that GFLs play a role in a number of biological processes including cell survival, neurite outgrowth, cell differentiation and cell migration. As the founding member, GDNF plays a key role in the promotion of the survival of dopaminergic neurons. GDNF is a highly conserved neurotrophic factor. The recombinant form of this protein also promotes the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. GDNF also regulates kidney development and spermatogenesis, and it affects alcohol consumption. It has been shown that GDNF results in two Parkinson's disease clinical trial and in a number of animal trials. It has been taken as a potent survival factor for central motoneurons.

Basic Information

Description

Recombinant Human GDNF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Arg109-Ile211) of human GDNF (Accession #NP_000505.1) fused with an 6×His tag at the C-terminus.

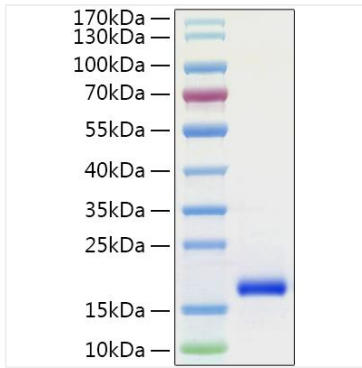
Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Human GDNF at 1 μg/mL (100 μL/well) can bind Human GFRA1 with a linear range of 2-332 ng/mL.

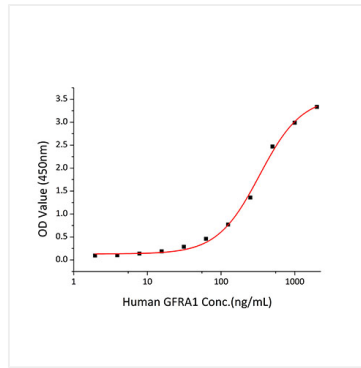
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human GDNF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 18 kDa.



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