

Recombinant Rat GDNF Protein

Catalog No.: RP03234

Sequence Information

Species **Gene ID**
Rat 25453

Swiss Prot **Tags**
Q07731-1 N-His

Synonyms

GDNF,ATF,ATF1,ATF2,HFB1-GDNF,
HSCR3

Product Information

Source **Purification**
Baculovirus- ≥ 95 % as
Insect Cells determined by
 SDS-PAGE.

Calculated MW **Observed MW**
17.1 KDa 20 KDa

Endotoxin

< 1 EU/μg of the protein by LAL
method.

Formulation

Supplied as a 0.22 μm filtered
solution of 20 mM Tris, 500 mM
NaCl, pH 7.4. Contact us for
customized product form or
formulation.

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.

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 Rat GDNF Protein is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Ser78-Ile211) of Rat GDNF (Accession #NP_062012.1) fused with an 6×His tag at the N-terminus.

Activity

Measured in a cell proliferation assay using SH-SY5Y human neuroblastoma cells. The ED50 for this effect is typically 10–50 ng/mL in the presence of Recombinant Rat GFR alpha-1/GDNF R alpha-1 His Chimera.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

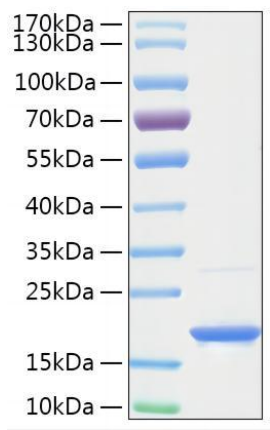
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Validation Data



Recombinant Rat GDNF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.