

Canine GDNF Protein (Fc Tag)

Catalog Number: 70255-D01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

GDNF

Protein Construction:

A DNA sequence encoding the canine GDNF (XP_005619436.1) (Arg109-Ile211) was expressed with the Fc region of human IgG1 at the N-terminus.

Source: Canine

Expression Host: HEK293 Cells

QC Testing

Purity: > (81.3+11.4) % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu

Molecular Mass:

The recombinant canine GDNF consists 363 amino acids and predicts a molecular mass of 40 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

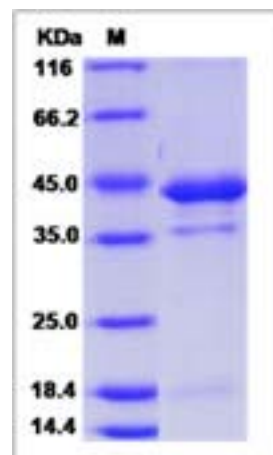
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1. Oppenheim RW, *et al.* (1995) Developing motor neurons rescued from programmed and axotomy-induced cell death by GDNF. *Nature*. 373 (6512): 344-6.
2. Tomac A, *et al.* (1995) Protection and repair of the nigrostriatal dopaminergic system by GDNF in vivo. *Nature*. 373 (6512): 335-9.
3. Schindelhauer D, *et al.* (1996) The gene coding for glial cell line derived neurotrophic factor (GDNF) maps to chromosome 5p12-p13.1. *Genomics*. 28 (3): 605-7.

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