

GDNF
Catalog # PVGS1346**Specification**

GDNF - Product Information

Primary Accession [P48540](#)
Species
Mouse

Sequence
Met77-Ile211

Purity
> 95% as analyzed by SDS-PAGE
> 95% as analyzed by HPLC

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Biological Activity
ED₅₀ < 8.0 µg/ml, measured in a bioassay using C6 cells.

Expression System
CHO

Formulation **Lyophilized after extensive dialysis against PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

GDNF - Additional Information

Gene ID 14573

Other Names
Glial cell line-derived neurotrophic factor, mGDNF, Astrocyte-derived trophic factor, ATF, Gdnf

Target Background
Glial-Derived Neurotrophic Factor, also known as GDNF and ATF-1, is a neurotrophic factor belonging to the TGF-beta family. It is expressed in both central nervous system (CNS) and non-CNS tissues. GDNF signals through a receptor system composed of a RET and one of the four GFR alpha receptors. It promotes the survival and differentiation of dopaminergic neurons, and increases their high-affinity dopamine uptake. In a mouse Parkinson's Disease model, GDNF has

been shown to improve bradykinesia, rigidity, and postural instability. GDNF has also been shown to regulate kidney development, spermatogenesis and affect alcohol consumption.

GDNF - Protein Information

Name Gdnf

Function

Neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high- affinity dopamine uptake. Acts by binding to its coreceptor, GFRA1, leading to autophosphorylation and activation of the RET receptor. Involved in the development of the neural crest.

Cellular Location

Secreted {ECO:0000250|UniProtKB:P39905}.

Tissue Location

Expressed in both the central nervous system (CNS) and in non-CNS tissues. Expressed in a highly dynamic pattern in the anterior neuroectoderm during the early stages of neurogenesis between 7.5 dpc and 10.5 dpc. Beginning at 10.5 dpc, expression begins in mesenchymal tissues of several organs including the digestive tract, kidney, testis, frontonasal mass, tooth primordium, tongue, mandible, whisker follicles, ear, eye, limb bud and in distinct regions of the brain. Also expressed in the heart, ileum, liver and muscle

GDNF - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

GDNF - Images