



Glial Derived Neurotrophic Factor (GDNF, Glial cell line-derived neurotrophic factor, Astrocyte-derived trophic factor 1, ATF-1, ATF-2)

Catalog number

G2036-01H

Supplier

United States Biological

GDNF is a glycosylated, disulfide-bonded homodimer molecule. It was first discovered as a potent survival factor for midbrain dopaminergic neurons and was then shown to rescue these neurons in animal models of Parkinson's disease. GDNF is about 100 times more efficient survival factor for spinal motor neurons than the neurotrophins. ; Neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake. SUBUNIT: Homodimer; disulfide-linked.

Cellular Localization

Secreted protein.

Alternative Products

2 named isoforms produced by alternative splicing. ; DISEASE: Defects in GDNF may be a cause of Hirschsprung disease (HSCR). In association with mutations of RET gene, defects in GDNF may be involved in Hirschsprung disease. This genetic disorder of neural crest development is characterized by the absence of intramural ganglion cells in the hindgut, often resulting in intestinal obstruction. DISEASE: Defects in GDNF are a cause of congenital central hypoventilation syndrome (CCHS); also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia. Belongs to the TGF-beta family. GDNF subfamily.

Applications

Suitable for use in Western Blot. Other applications not tested.

Recommended Dilution

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage and to avoid repeated freezing and thawing, aliquot Store at -20°C. Aliquots are stable for at least 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Recombinant human GDNF.

Formulation



Supplied as a lyophilized powder. Reconstitute in 100ul of sterile water. Centrifuge to remove any insoluble material.

Purity

Serum

Specificity

No cross reactivity with NTN has been observed in western blot analysis. Species Crossreactivity: This antibody is known to react with human, mouse and rat GDNF.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Serum

Applications

WB

Crossreactivity

Hu Mo Rt

Storage

-20°C

Reference

Lin et al. (1993) Science. 260(5111):1130-2