

GDNF, Human

Cat. No.: Z03387-50

Size: 50.0 µg

Synonyms: Glial-Derived Neurotrophic Factor, ATF-1; ATF2; HFB1-GDNF; HSCR3

Description:

Glial cell line-derived neurotrophic factor (GDNF) is a neurotrophic factor belonging to the TGF-beta super family and is necessary for neuron survival and phenotypic maintenance in the central and peripheral nervous systems. G-DNF has the potential to support the differentiation and survival of many neuron subpopulations, especially dopaminergic neurons and motor neurons, as well as Purkinje cells and sympathetic neurons. Sertoli cells, type 1 astrocytes, Schwann cells, neurons, pinealocytes and skeletal muscle cells are known to express GDNF in human. GDNF has been shown to interact with GFRA2 and GDNF family receptor alpha 1. Mutations in this gene may be associated with Hirschsprung's disease, Parkinson's disease and amyotrophic lateral sclerosis (ALS).

The recombinant human G-DNF expressed in *E.coli* is a disulfide-linked homo-dimer, with an apparent molecular weight of 17 kDa.

Amino Acid Sequence:

```
00001 MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR
00041 GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCDAAETTY
00081 DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV
00121 YHILRKHS AK RCGCI
```

Source: *E.coli*

Biological Activity: ED₅₀<5 µg/ml, measured in a proliferation assay using C6 cells.

Molecular Weight: 17 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

Purity: > 95% as analyzed by SDS-PAGE.

Endotoxin Level: <0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant Human GDNF remains stable up to 6 months when stored at lower than -70°C from date of receipt. Upon reconstitution, Human GDNF should be stable up to 1 week at 4°C or up to 3 months at -20°C.