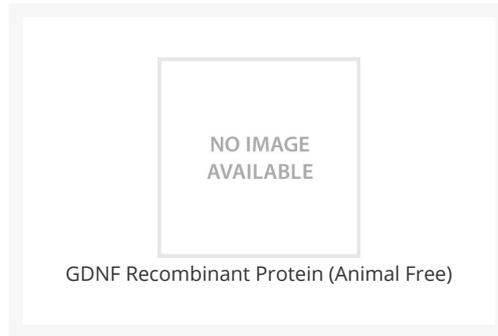




# GDNF Recombinant Protein (Animal Free)

Cat. No.: 40-774



## Ψ Specifications

|                        |  |
|------------------------|--|
| <b>SPECIES:</b>        | Mouse, Rat   |
| <b>SOURCE SPECIES:</b> | E. coli  |
| <b>SEQUENCE:</b>       | MSPDKQAAAL PRRERNRQAA AASPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET<br>KEELIFRYCS GSCESAETMY DKILKNLSRS RRLTSDKVGQ ACCRPVAFDD DLSFLDDNLV<br>YHILRKHSAK RCGCI |

## Ψ Properties

|                            |   |
|----------------------------|---|
| <b>PURITY:</b>             | ≥ 98% by SDS-PAGE gel and HPLC analyses.  |
| <b>PHYSICAL STATE:</b>     | Lyophilized   |
| <b>STORAGE CONDITIONS:</b> | The recombinant protein is stable for at least 2 years from date of receipt at -20 °C. Reconstituted protein is stable for at least 3 months when stored in working aliquots with a carrier protein at -20 °C. As with any protein, exposing the recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature. |

## Ψ Additional Info

|                         |  |
|-------------------------|--|
| <b>OFFICIAL SYMBOL:</b> | Gdnf                                     |
| <b>ALTERNATE NAMES:</b> | Glial-Derived Neurotrophic Factor, ATF-1 |
| <b>GENE ID:</b>         | 14573                                    |

## Background and References

|                    |   |
|--------------------|---|
| <b>BACKGROUND:</b> | <p>GDNF is a disulfide-linked, homodimeric neurotrophic factor structurally related to Artemin, Neurturin and Persephin. These proteins belong to the cysteine-knot superfamily of growth factors that assume stable dimeric protein structures. GDNF signals through a multicomponent receptor system, composed of a RET and one of the four GFR<math>\alpha</math> (<math>\alpha</math>1-<math>\alpha</math>4) receptors. GDNF specifically promotes dopamine uptake and survival, and morphological differentiation of midbrain neurons. Using a Parkinson's disease mouse model, GDNF has been shown to improve conditions such as bradykinesia, rigidity, and postural instability. The functional murine GDNF ligand is a disulfide-linked homodimer consisting of two 15.1 kDa polypeptide chains called monomers. Each monomer contains seven conserved cysteine residues, including Cys-101, which is used for inter-chain disulfide bridging, and others that are involved in the intramolecular ring formation known as the cysteine-knot configuration. The calculated molecular weight of Recombinant Murine GDNF is 30.2 kDa.</p> |
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