

# GDNF, murine recombinant

<b>CATALOG #:</b>	7156-10	10 µg
	7156-50	50 µg
<b>ALTERNATE NAMES:</b>	Glial-Derived Neurotrophic Factor, ATF-1	
<b>SOURCE:</b>	E Coli	
<b>PURITY:</b>	≥ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	15.1 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/µg of protein (<1EU/µg).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium citrate.	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

**RECONSTITUTION:**

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**DESCRIPTION:**

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 $\alpha$  ( $\alpha$ 1- $\alpha$ 4) receptors. GDNF specifically promotes dopamine uptake and survival and morphological differentiation of midbrain neurons. Using 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, of two 15.1 kDa polypeptide chains called monomers. Each monomer contains seven conserved cysteine residues, one of which is used for inter-chain disulfide bridging and the others are involved in intramolecular ring formation known as the cysteine knot configuration.

**BIOLOGICAL ACTIVITY:**

The ED<sub>50</sub> was determined by the proliferation of rat C6 cells is ≤ 0.2 ng/ml, corresponding to a specific activity of ≥ 5 x 10<sup>6</sup> units/mg.

**AMINO ACID SEQUENCE:**

MSPDKQAAAL PRRERNRQAA AASPENSRGK GRRGQRGKNR GCVLTAIHLN  
VTDLGLGYET KEELIFRYCS GSCESAETMY DKILKNLSRS RRLTSDKVGG  
ACCRPVAFDD DLSFLDDNLV YHILRKHSAK RCGCI

**RELATED PRODUCTS:**

- GDNF, rat recombinant (**Cat. No. 7157-10, -50**)
- GDNF, human recombinant (**Cat. No. 4097-10, -50, 100**)
- GDNF Antibody (**Cat. No. 5098-100**)
- GDNF Antibody (**Cat. No. 5198-100**)
- GDNF Blocking peptide (**Cat. No. 5098BP-50**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**