

**GDNF, rat recombinant protein**  
**Glial-Derived Neurotrophic Factor, ATF-1**  
**Catalog # PBV10787r****Specification**

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**GDNF, rat recombinant protein - Product info**

Primary Accession [Q07731](#)  
Calculated MW **15 kDa** **KDa**

**GDNF, rat recombinant protein - Additional Info**

Gene ID	<b>25453</b>
Gene Symbol	<b>GDNF</b>
<b>Other Names</b>	
Glial-Derived Neurotrophic Factor, ATF-1	
Gene Source	<b>Murine</b>
Source	<b>E.coli</b>
Assay&Purity	<b>SDS-PAGE; ≥98%</b>
Assay2&Purity2	<b>HPLC;</b>
Recombinant	<b>Yes</b>
Sequence	<b>MSPDKQAAAL PRRERNRQAA AASPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCEAAETMY DKILKNLSRS RRLTSDKVGQ ACCRPVAFDD DLSFLDDSLV YHILRKHS AK RCGCI</b>

**Target/Specificity**  
**GDNF**

**Application Notes**

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.

**Format**

Lyophilized powder

**Storage**

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium citrate.

**GDNF, rat recombinant protein - 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](#)

#### **GNDF, rat recombinant protein - Images**

#### **GNDF, rat recombinant protein - Background**

GNDF 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 rat GDNF ligand is a disulfide linked homodimer, of two 15.0 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.

#### **GNDF, rat recombinant protein - References**

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Springer J.E., et al. Exp. Neurol. 131:47-52(1995).  
Russell F.D., et al. Neuroscience 97:575-580(2000).  
Suter-Crazzolara C., et al. NeuroReport 5:2486-2488(1994).  
Schmidt C., et al. Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.