

## 32-20143: Recombinant Human GDNF(Discontinued)

**Reactivity :** Human, Monkey, Mouse, Rat  
**Alternative Name :** Glial-Derived Neurotrophic Factor, ATF-1

### Description

**Source:** *E.coli* 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 a Parkinson's disease mouse model, GDNF has been shown to improve conditions such as bradykinesia, rigidity, and postural instability. The functional human GDNF ligand is a disulfide-linked homodimer consisting of two 15 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 Human GDNF is 30.4 kDa.

### Product Info

**Amount :** 2  $\mu$ g / 10  $\mu$ g  
**Purification :** Purity:  $\geq$  98% by SDS-PAGE gel and HPLC analyses.  
**Content :** This recombinant protein is supplied in lyophilized form.  
**Amino Acid :** MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS  
GSCDAAETTY DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHS AK RCGCI

### Application Note

Determined by a cell proliferation assay using SH-SY5Y cells. The expected  $ED_{50}$  for this effect is 1.0-10.0 ng/ml.