

32-20146: Animal-Free Recombinant Murine GDNF(Discontinued)

Reactivity : 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 GFRAlpha (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 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.

Product Info

Amount : 2 µg / 10 µg

Purification : Purity: $\geq 98\%$ by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : MSPDKQAAAL PRRERNRQAA AASPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS
GSCSAETMY DKILKNLSRS RRLTSDKVGQ ACCRPVAFDD DLSFLDDNLV YHILRKHSAK RCGCI

Application Note

The ED_{50} was determined by the proliferation of rat C6 cells is ≤ 0.2 ng/ml, corresponding to a specific activity of $\geq 5 \times 10^6$ units/mg.