

Growth Factor Data Sheet

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Glial cell-derived neurotrophic factor (GDNF) is a small protein that promotes the survival of various neuronal subpopulations in both the central as well as the peripheral nervous systems at different stages of their development. GDNF is a founding member of the GDNF family of ligands (GFL) and has been shown to interact with GDNF family receptor alpha 1 (GDNFA1) and GDNFA2. Rat GDNF exists as a homodimer and contains seven conserved cysteine residues, one of which (Cys 101) is used for inter-chain disulfide bridging while the others are involved in intramolecular ring formation known as the cystine knot configuration.

Catalog Number	1570-14
Product Name	GDNF, Rat Recombinant Rat Glial Cell-derived Neurotrophic Factor GDNF ATF1, ATF2 Astrocyte-derived Trophic Factor
Source	<i>Escherichia coli</i>
MW	~29.8 kDa (2x 134 amino acids)
Sequence	SPDKQAAALP RRERNRQAAA ASPENSRGKG RRGQRGKNRG CVLTAIHLNV TDGLGLGYETK EELIFRYCSG SCEAAETMYD KILKNLSRSR RLTSKVGQA CCRPVAFDDD LSFLDSSLVY HILRKHSKR CGCI
Accession Number	Q07731
Purity	>98% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using rat C6 cells is less than 0.2 ng/ml, corresponding to a specific activity of >5.0 × 10 ⁶ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.