

## Glial-Derived Neurotrophic Factor Active Protein | GDNF active protein

Recombinant Human Glial-Derived Neurotrophic Factor

CATALOG #  
**AAA38153**

HOST  
**E Coli**

### PRODUCT SYNONYMS

Glial-Derived Neurotrophic Factor; Recombinant Human Glial-Derived Neurotrophic Factor; GDNF Human; Glial-Derived Neurotrophic Factor Human Recombinant; ATF1; ATF2; HFB1-GDNF; GDNF; GDNF active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                                                                                                                                                                                                                                                                                |
| Purity/Purification     | Greater than 98.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.                                                                                                                                                                                                                                                                                                |
| Form/Format             | GDNF was lyophilized after dialysis against 10mM sodium citrate and 150mM NaCl.<br>Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                          |
| Sequence                | MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS<br>GSCDAAETTY DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHSAK RCGCI                                                                                                                                                                                                                               |
| Sequence Length         | 211                                                                                                                                                                                                                                                                                                                                                                                   |
| Solubility              | It is recommended to reconstitute the lyophilized Glial Derived Neurotrophic Factor in sterile 18M Omega -cm H2O not less than 100 ug/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                               |
| Biological Activity     | The ED50, calculated by the dose-dependant dopamin uptake in rat mesencephalic cultures was found to be 5-10 ng/ml, corresponding to a specific activity of 100,000-200,000Units/mg.                                                                                                                                                                                                  |
| Preparation and Storage | Lyophilized Glial-derived Neurotrophic Factor although stable at room temperature for 3 weeks, should be stored desiccated below -18 degree C. Upon reconstitution GDNF should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles. |

### ADDITIONAL INFORMATION

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|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for GDNF active protein | <p><b>Description:</b> Glial derived Neurotrophic Factor Human Recombinant produced in E Coli is a homodimer, non-glycosylated, polypeptide chain containing 2 x 135 amino acids and having a total molecular mass of 30,360 Dalton. GDNF is purified by proprietary chromatographic techniques.</p> <p><b>Introduction:</b> GDNF promotes the survival and differentiation of dopaminergic neurons in culture, and is able to prevent apoptosis of motor neurons induced by axotomy. The encoded protein is processed to a mature secreted form that exists as a homodimer. The mature form of the protein is a ligand for the product of the RET (rearranged during transfection) protooncogene. In addition to the transcript encoding GDNF, two additional alternative transcripts encoding distinct proteins, referred to as astrocyte-derived trophic factors, have also been described. Mutations in this gene may be associated with Hirschsprung disease. GDNF enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake.</p> |
| Product Categories/Family for GDNF active protein   | Cytokines and Growth Factors; Neurotrophins; GDNF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### NCBI AND UNIPROT INFORMATION

|             |         |
|-------------|---------|
| NCBI GI #   | 4503975 |
| NCBI GeneID | 2668    |

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|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI Accession #                 | <a href="#">NP_000505.1</a>                                                                                                                                                                                                                                                                                                                                     |
| NCBI GenBank Nucleotide #        | <a href="#">NM_000514.3</a>                                                                                                                                                                                                                                                                                                                                     |
| UniProt Accession #              | <a href="#">P39905</a> ; <a href="#">O95448</a> ; <a href="#">O95449</a> ; <a href="#">O95986</a> ; <a href="#">Q6FH33</a> ; <a href="#">Q96L44</a> ; <a href="#">Q9UD32</a> ; <a href="#">Q9UD33</a> ; <a href="#">Q9UMV2</a> ; <a href="#">Q9UP67</a> ; <a href="#">Q9UP97</a> ; <a href="#">B7WPK7</a> ; <a href="#">AAB33493</a> ; <a href="#">AAB33494</a> |
| Molecular Weight                 | 18,123 Da                                                                                                                                                                                                                                                                                                                                                       |
| NCBI Official Full Name          | glial cell line-derived neurotrophic factor isoform 1 preproprotein                                                                                                                                                                                                                                                                                             |
| NCBI Official Synonym Full Names | glial cell derived neurotrophic factor                                                                                                                                                                                                                                                                                                                          |
| NCBI Official Symbol             | GDNF                                                                                                                                                                                                                                                                                                                                                            |
| NCBI Official Synonym Symbols    | ATF1; ATF2; HSCR3; HFB1-GDNF                                                                                                                                                                                                                                                                                                                                    |
| NCBI Protein Information         | glial cell line-derived neurotrophic factor; ATF; astrocyte-derived trophic factor                                                                                                                                                                                                                                                                              |
| UniProt Protein Name             | Glial cell line-derived neurotrophic factor                                                                                                                                                                                                                                                                                                                     |
| UniProt Gene Name                | <b>GDNF</b>                                                                                                                                                                                                                                                                                                                                                     |
| UniProt Synonym Gene Names       | hGDNF; ATF                                                                                                                                                                                                                                                                                                                                                      |
| UniProt Entry Name               | GDNF_HUMAN                                                                                                                                                                                                                                                                                                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-gdnf-active-protein/glial-derived-neurotrophic-factor/38153>