

Glial Cell Line Derived Neurotrophic Factor (GDNF) Active Protein | GDNF active protein

Active Glial Cell Line Derived Neurotrophic Factor (GDNF)

CATALOG #
AAA149225

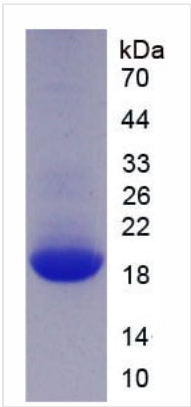
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

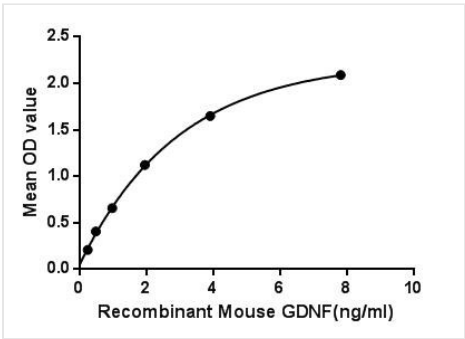
Glial Cell Line Derived Neurotrophic Factor (GDNF); Active Glial Cell Line Derived Neurotrophic Factor (GDNF); ATF1; ATF2; HFB1-GDNF; Astrocyte-Derived Trophic Factor; Glial Derived Neurotrophic Factor; GDNF active protein

PRODUCT SPECIFICATIONS

Purity/Purification	> 97%
Form/Format	Freeze-Dried Powder; 20mM Tris, 150mM NaCl, pH8.0, Containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Asp79~Leu217
Sequence Length	214
Applicable Applications for GDNF active protein	Activity Assay, Cell Culture
Species	Mouse
Tag	N-terminal His-Tag
Isoelectric Point	8.9
Subcellular Location	Secreted
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



SDS-PAGE



Activity

Figure. The binding activity of GDNF with GFRa2. Glial cell-derived neurotrophic factor (GDNF) is a small protein that potently promotes the survival of many types of neurons. This protein was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. The most prominent feature of GDNF is its ability to support the survival of dopaminergic and motoneurons. Besides, Glial Cell Line Derived Neurotrophic Factor Receptor Alpha 2 (GFRa2) has been identified as an interactor of GDNF, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse GDNF and recombinant mouse GFRa2. Briefly, GDNF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GFRa2-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-GDNF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of GDNF and GFRa2 was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for GDNF active protein	Cytokine; Apoptosis; Neuroscience
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NCBI AND UNIPROT INFORMATION

NCBI GI #	672349281
NCBI GeneID	14573
NCBI Accession #	NP_001288261.1
NCBI GenBank Nucleotide #	NM_001301332.1
UniProt Accession #	P48540
Molecular Weight	Predicted MW: 16.9kDa Accurate MW: 19kDa
NCBI Official Full Name	glial cell line-derived neurotrophic factor isoform 2
NCBI Official Synonym Full Names	glial cell line derived neurotrophic factor
NCBI Official Symbol	Gdnf
NCBI Official Synonym Symbols	ATF; AI385739
NCBI Protein Information	glial cell line-derived neurotrophic factor
UniProt Protein Name	Glial cell line-derived neurotrophic factor
UniProt Gene Name	Gdnf
UniProt Synonym Gene Names	mGDNF; ATF

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/active-protein/glia1-cell-line-derived-neurotrophic-factor-gdnf/149225>