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Datasheet for ABIN2667420 **GDNF Protein (AA 78-211, N-Term)**

Overview

Quantity:	10 µg
Target:	GDNF
Protein Characteristics:	N-Term, AA 78-211
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

Product Details

Purity:	>98 % , as determined by Coomassie stained SDS-PAGE.
Endotoxin Level:	Less than 0.1 ng per µg of protein.

Target Details

Target:	GDNF
Alternative Name:	GDNF (GDNF Products)
Background:	Glial cell line-derived neurotrophic factor (GDNF) is a member of the TGF- β superfamily and was first identified as a growth factor supporting the survival of embryonic midbrain neurons. GDNF has been shown to promote the development, differentiation, and survival of dopaminergic neurons by signaling through GDNF family receptor α -1 (GFR α 1) and the coreceptor Ret receptor tyrosine kinase. Dysregulated expression of GDNF has been reported

Target Details

to be associated with several mental diseases, including depression and schizophrenia. GDNF is considered as a promising therapeutic agent for the treatment of Parkinson's disease, since GDNF can protect dopaminergic neurons from neurotoxin and promotes neuron regeneration after injury. In addition to the functions in the nervous system, GDNF is also required for the differentiation of spermatogonia and development of kidney. Upregulated expression of GDNF was observed in various cancer cell lines and correlates with malignant cancer progression, suggesting a role of GDNF in carcinogenesis.

Molecular Weight: The 135 amino acid recombinant protein has a predicted molecular mass of approximately 15.0 kDa. Recombinant human GDNF forms a disulfide-linked homodimer. The predicted N-terminal amino acid is Met.

Pathways: [RTK Signaling](#), [Synaptic Membrane](#), [Tube Formation](#), [Autophagy](#), [Smooth Muscle Cell Migration](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Biological activity: ED50 \leq 0.1 ng/ml, corresponding to a specific activity of $\geq 1.0 \times 10^7$ units/mg, as measured by its ability to stimulate proliferation of rat C6 cells in a dose dependent manner.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: For maximum results, quick spin vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/mL. Do not vortex. It is recommended to further dilute in a buffer, such as 5 % Trehalose, and store in working aliquots at -20 °C to -80 °C.

Buffer: Lyophilized, carrier-free.

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: -20 °C

Storage Comment: Unopened vial can be stored at -20°C or -70°C.