

Datasheet for ABIN2667381 **NGFB Protein (AA 122-239)**

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Overview

Quantity:	100 µg
Target:	NGFB
Protein Characteristics:	AA 122-239
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 and HPLC analysis.
Endotoxin Level:	Less than 0.1 ng per µg of protein.

Target Details

Target:	NGFB
Alternative Name:	beta-NGF (NGFB Products)
Background:	β-NGF is a pluripotent mediator and it exists in many tissues. Secreted β-NGF can bind to tryosine kinase A receptor with higher affinity and to p75 (NTR) with low affinity. β-NGF is well known as an endogenous neurotrophic factor involved in the embryonal development, survival, and regeneration of mammalian sympathetic and sensory neurons. In adults, β-NGF is also involved in the survival and regeneration of neurons in the central nervous system. Involvement

Target Details

of β -NGF in the immune system has also been reported. In vitro cultured B lymphocyte can constitutively secrete β -NGF, which can act as an autocrine growth and differentiation factor for B cells. β -NGF can also downregulate the production of IFN- γ by T cells. Recombinant β -NGF has been used in many clinical trials to treat different diseases including Alzheimer's disease, diabetic polyneuropathy, and HIV-associated peripheral neuropathy.

Molecular Weight: The 118 amino acid recombinant protein has a predicted molecular mass of approximately 13.5 kDa. This protein is a disulfide-linked homodimer and the predicted molecular mass is 27 kDa. The predicted N-terminal amino acid is Ser.

Pathways: [NF-kappaB Signaling](#), [RTK Signaling](#), [Regulation of Cell Size](#)

Application Details

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

Comment: Biological activity: Assay 1: Determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. The expected ED50 is ≤ 1.0 ng/ml, corresponding to a specific activity of $\geq 1.0 \times 10^6$ units/mg. Assay 2: Determined by its ability to stimulate chick E9 DRG neurite outgrowth. The expected ED50 is ≤ 1.0 ng/ml, corresponding to a specific activity of $\geq 1.0 \times 10^6$ units/mg.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: For maximum results, quickly 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 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 .