Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

Recombinant human beta-NGF protein

Product overview

Name	Recombinant human beta-NGF protein
Cat No	HB9303
Biological description	beta-NGF is a neurotrophic factor found in many tissues and is involved in a range of biological activities such as embryonal development, survival, and regeneration of mammalian sympathetic and sensory neuron. It is also involved in the immune system and has been shown to downregulate IFN-gamma production by T-cells. Also implicated in survival and regeneration of neurons. NGF-beta, BDNF, GDNF, CNTF, LDN, SB431542, Y27632 and XAV939 are used in neural stem cells (NSC) proliferation and differentiation workflows.
Species of origin	human
Alternative names	Recombinant Human beta Nerve Growth Factor, Beta Polypeptide, NGF, NGFB, HSAN5, Beta-NGF, MGC161426, MGC161428.
Biological action	Activator
Purity	>95%
Description	Neurotrophic factor related to BDNF, NT-3 and NT-4

Biological Data

Application notes	ED_{50} = 1.3-2 µg/ml (determined by stimulation of proliferation of TF-1 cells and is typically <1.0 ng/ml, corresponding to a specific activity of >1,000,000units/mg.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	To make a stock solution, reconstitute in sterile 18MΩcm water at a concentration > 100µg/ml, which can then be diluted to make a working solution
Handling	• Solutions should be made in sterile deionized water (not less than 100 µg/ml). This solution can then be further diluted with other aqueous solutions. • Following reconstitution, solutions may be stored at 4°C and are useable for around 2-7 days and for future use store at -18°C. • For long term storage, a carrier protein (0.1% HSA or BSA) should be added to stock solutions. Solutions should be aliquoted into tightly sealed vials for storage at -20°C. Freeze-thaw cycles should be prevented.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

UniProt ID	P01138
Source	Escherichia Coli
Appearance	White lyophilized powder (sterile filtered & freeze-dried)
Formulation	Lyophilized from a 0.2µm filtered solution containing 0.1% TFA

References

Studies on the expression of the beta nerve growth factor (NGF) gene in the central nervous system: level and regional distribution of NGF mRNA suggest that NGF functions as a trophic factor for several distinct populations of neurons

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Studies on the regulation of beta-nerve growth factor gene expression in the rat iris: the level of mRNA-encoding nerve growth factor is increased in irises placed in explant cultures in vitro, but not in irises deprived of sensory or sympathetic innervat

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