

DATASHEET

Recombinant human CDNF protein

Product overview

Name	Recombinant human CDNF protein
Cat No	HB8544
Biological description	Neurotrophin factor that is expressed in brain, neuronal and some non-neuronal tissues. CDNF is mainly localized to the endoplasmic reticulum lumen and modulates the unfolded protein response (UPR) pathway.
	It has been shown to promote survival, growth and function of dopamine-specific neurons.
	It additionally shows neurorestorative effects in a number of Parkinson's disease animal models.
Species of origin	human
Alternative names	Recombinant Human Cerebral Dopamine Neurotrophic Factor, Cerebral neurotrophic factor, arginine-rich, mutated in early stage tumors-like 1, Conserved neurotrophic factor, ARMET-like protein 1, ARMETL1.
Biological action	Activator
Purity	>96%
Description	Neurotrophin implicated in Parkinson's disease research

Biological Data

Application notes	ED ₅₀ = 15-25µg/ml (determined by its ability to stimulate of proliferation of rat C6 cells) corresponding to a specific activity of 40-67units/mg.
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Solubility & Handling

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	<ul style="list-style-type: none">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	Q49AH0
Source	E. Coli.
Appearance	White lyophilized powder (sterile filtered & freeze-dried)
Formulation	Lyophilized from a 0.2µm filtered solution in PBS (pH 7.4)

References

CDNF Protein Therapy in Parkinson's Disease

Huttunen HJ *et al* (2019) Cell Transplant 28(4)

PubMedID 30947516

Characterization of recombinant human brain-derived neurotrophic factor variants

Sunasara KM *et al* (1999) Arch Biochem Biophys 372(2)

PubMedID 10600162

Transport of human recombinant brain-derived neurotrophic factor (BDNF) through the rat blood-brain barrier *in vivo* using vector-mediated peptide drug delivery

Pardridge WM *et al* (1994) Pharm Res 11(5)

PubMedID 8058646
