

# Recombinant Rat Cerebral Dopamine Neurotrophic Factor (Rat CDNF)

## Product Information

Product Name	Cat#	Size
	92127ES08	5 µg
Recombinant Rat Cerebral Dopamine Neurotrophic Factor (Rat CDNF)	92127ES60	100 µg
	92127ES76	500 µg

## Product Description

Cerebral dopamine neurotrophic factor (CDNF), also known as ARMET-like protein 1, is a protein encoded by the CDNF gene and it is widely expressed in neuronal and non-neuronal tissues. The cerebral dopamine neurotrophic factor (CDNF) also is a novel neurotrophic factor with strong trophic activity on dopaminergic neurons comparable to that of glial cell line-derived neurotrophic factor (GDNF). By research, CDNF prevents the 6-hydroxydopamine (6-OHDA)-induced degeneration of dopaminergic neurons and it might be beneficial for the treatment of parkinson's disease. The human CDNF cDNA encodes a 187 aa protein with a 24 aa signal sequence and a 163 mature sequence. Mature human CDNF shares 80%, 84%, 90% and 92% aa identity with mouse, rat, equine and bovine CDNF, respectively. Although CDNF mRNA and protein are expressed in pre- and post-natal mouse brain, they are most abundant in adult heart, skeletal muscle and testis. Transcripts within the postnatal mouse brain are concentrated in the hippocampus, thalamus, corpus callosum and optic nerve.

## Product Properties

<b>Synonyms</b>	ARMETL1, ARMET-like protein 1, CDNF, cerebral dopamine neurotrophic factor
<b>Accession</b>	Q8CC36
<b>GeneID</b>	227526
<b>Source</b>	E.coli-derived rat CDNF protein, Gln25-Leu187.
<b>Molecular Weight</b>	Approximately 18.5 kDa.
<b>AA Sequence</b>	QGLEAGVGPR ADCEVCKEFL DRFYNSLLSR GIDFSADTIE KELLNFCSDA KGKENRLCYL LGATTDAAATK ILGEVTRPMS VHIPAVKICE KLKKMDSQIC ELKYGKKLDL ASVDLWKMVRV AELKQILQRW GEECRACA EKSDYVNLIREL APKYVEIYPQ TEL
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	>97% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	Fully biologically active when compared to standard. It is able to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons when immobilized at 5 - 30 µg/mL on a nitrocellulose-coated microplate.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

### **Shipping and Storage**

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!