

Recombinant Human Artemin

Cat. No. ARTN-12H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human Artemin produced in *E. Coli* is a disulfide-linked homodimer, non-glycosylated, polypeptide chain containing 2x113 amino acids and having a total molecular mass of 24205 Dalton. Artemin is purified by proprietary chromatographic techniques.

Species Human

Source E.coli

Description The protein encoded by this gene is a member of the glial cell line-derived neurotrophic factor (GDNF) family of ligands which are a group of ligands within the TGF-beta superfamily of signaling molecules. GDNFs are unique in having neurotrophic properties and have potential use for gene therapy in neurodegenerative disease. Artemin has been shown in culture to support the survival of a number of peripheral neuron populations and at least one population of dopaminergic CNS neurons. Its role in the PNS and CNS is further substantiated by its expression pattern in the proximity of these neurons. This protein is a ligand for the RET receptor and uses GFR-alpha 3 as a coreceptor. Four alternatively spliced transcripts have been described, two of which encode the same protein.

Amino acid sequence The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Gly-Gly-Pro-Gly.

Physical Appearance Sterile Filtered White lyophilized (freeze-dried) powder.

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Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	Artemin was lyophilized after extensive dialysis against 10mM sodium citrate pH-4.5 and 150mM sodium chloride.
Solubility	It is recommended to reconstitute the lyophilized Artemin in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The Biological activity is calculated by it's ability to promote survival and neurite outgrowth and dorsal root ganglion neurons.
Storage	Lyophilized Artemin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Artemin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	ARTN artemin [Homo sapiens]
Synonyms	ARTN; Artemin; EVN; NBN; ENOVIN; neurotrophic factor artemin; Neublastin; neurotrophic factor; artemin; neublastin; Enovin; OTTHUMP00000009173; OTTHUMP00000009174
Gene ID	9048
mRNA Refseq	NM_001136215
Protein Refseq	NP_001129687

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MIM	603886
UniProt ID	Q5T4W7
Chromosome Location	1p33-p32
Function	growth factor activity

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