

Artemin, human recombinant (rHuArtemin)

Catalog No: 87311
Lot No: XXXXX
Source: *E. coli*
Synonyms: ART, ARTN , EVN, NBN

Background

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.

Description

Artemin human recombinant produced in *E. coli* is a disulfide-linked homodimer, non-glycosylated, polypeptide chain containing 2 x 113 amino acids and having a total molecular mass of 24205 Dalton. Artemin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Artemin was lyophilized after extensive dialysis against 10 mM sodium citrate pH 4.5 and 150 mM sodium chloride.

Solubility

It is recommended to reconstitute the lyophilized Artemin in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Artemin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Artemin Human Recombinant 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.

Purity

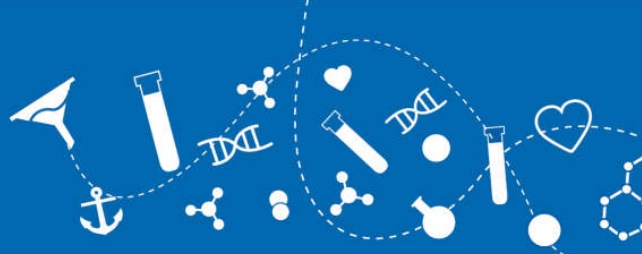
Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

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.

Activity

The Biological activity is calculated by it's ability to promote survival and neurite outgrowth and dorsal root ganglion neurons.



Usage

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