



Endothelial Monocyte Activating Polypeptide II (EMAPII), human recombinant (rHu EMAPII)

Catalog No: 08556
Lot No: XXXXX
Source: *E. coli*
Synonyms: AIMP1, EMAP2, EMAP-2, EMAPII, SCYE1, Multisynthetase complex auxiliary component p43, Endothelial monocyte-activating polypeptide 2, EMAP-II, p43

Background

EMAP-II also called SCYE1 is a tumor derived cytokine that plays a role in a wide variety of activities on endothelial cells, monocytes and neutrophils. EMAP-II inhibits endothelial cell proliferation, vasculogenesis, neovessel formation, and can induce apoptosis. It is also chemotactic towards neutrophils and monocytes and induces myeloperoxidase activity from neutrophils. EMAP-II clinical value is inhibiting angiogenesis of vascular beds and suppressing the growth of primary and secondary tumors with no affect to normal tissues. SCYE1 is specifically induced by apoptosis, and it is involved in the control of angiogenesis, inflammation, and wound healing. The release of this SCYE1 renders the tumor-associated vasculature sensitive to tumor necrosis factor. The precursor protein is identical to the p43 subunit, which is associated with the multi-tRNA synthetase complex, and it modulates aminoacylation activity of tRNA synthetase in normal cells. EMAP-2 plays a role in the stimulation of inflammatory responses after proteolytic cleavage in tumor cells.

Description

EMAP-II human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 166 amino acids and having a molecular mass of 18.3 kDa. EMAP-II is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1 mg/ml) solution in water containing 20 mM sodium phosphate buffer pH 7.5 and 130 mM sodium chloride.

Solubility

It is recommended to reconstitute the lyophilized EMAP-II 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 EMAP-II, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution EMAP-II should be stored at 4°C between 2-7 days and for future use below -18°C. 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

SKPIDVSRLD LRIGCIITAR KHPDADSLYV EEVDVGEIAP RTVVSGLVNH VPLEQMQRNM VILLCNLKPA KMRGVLSQAM
VMCASSPEKI EILAPPNGSV PGDRITFDAF PGEPEKELNP KKKIWEQIQP DLHTNDECVA TYKGVPFVVK GKGVCRAQTM
SNSGIK

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Activity

Determined by the apoptotic effect on MCF-7 cells using a concentration of 20 - 30 ng/ml.

Usage

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