

Recombinant Human Endothelial-Monocyte Activating Polypeptide II (rh EMAP-II)

Synonyms: AIMP1, SCYE1, Multisynthetase complex auxiliary component p43, p43

Introduction: EMAP-II 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's clinical value is inhibiting angiogenesis of vascular beds and suppressing the growth of primary and secondary tumors with no affect to normal tissues. EMAP-II is specifically induced by apoptosis and is involved in the control of angiogenesis, inflammation and wound healing. The release of EMAP-II 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 modulates aminoacylation activity of tRNA synthetase in normal cells. EMAP-II plays a role in the stimulation of inflammatory responses after proteolytic cleavage in tumor cells.

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

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a concentrated (1mg/ml) solution in water containing 20mM sodium Phosphate buffer pH=7.5 and 130mM sodium chloride. The aliquots of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh EMAP-II in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh EMAP-II although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh EMAP-II 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 RP-HPLC and by SDS-PAGE.

Amino Acid Sequence: SKPIDVSRLD LRIGCIITAR KHPDADSLYV EEVDVGEIAP RTVVSGLVNH VPLEQM QNRM VILLCNLKPA KMRGVLSQAM VMCASSPEKI EILAPPNGSV PGDRITFADF PGEPDKELNP KKKIWEQIQP DLHTNDECVA TYKGVPEFEVK GKGVCRAQTM SNSGIK.

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

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11344140
<i>medium</i>	20 µg	Cat.N°	11344144

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