

Product datasheet

Recombinant Human EMAP II/AIMP1 protein (His tag) ab219664

1 Image

Description

Product name	Recombinant Human EMAP II/AIMP1 protein (His tag)	
Purity	> 95 % SDS-PAGE.	
Endotoxin level	< 1.000 Eu/μg	
Expression system	Escherichia coli	
Accession	<u>Q12904</u>	
Protein length	Full length protein	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	ANNDAVLKRLEQKGAEADQII EYLKQQV SLLKEKAILQATL REEKCLRVE NAKLKKEIEELKQELIQAEIQNGVKQIPFPSGTPLHANSMV SENVIQSTA VTTVSSGTKEQIKGGTGDEKKAKEKIEKKGEKKEKKQCSI AGSADSKPID VSRLDLRIGCIITARKHPDADSLYEEVDVGEIAPRTVVSGL VNHVPLEQ MQNRMVILLCNLKPAKMRGVL SQAMVMCASSPEKIEILAP PNGSVPGDRI TFDAFPGEPAKELNPKKKIWEQIQPDLHTNDEC VATYKGV PFEVKGKGV C RAQTMSNSGIK	
Predicted molecular weight	35 kDa including tags	
Amino acids	2 to 312	
Tags	His tag N-Terminus	

Specifications

Our **Abpromise guarantee** covers the use of **ab219664** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilized
Additional notes	This product was previously labelled as EMAP II

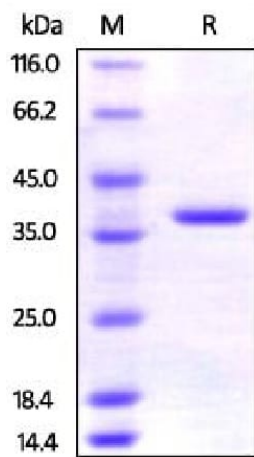
Preparation and Storage

Stability and Storage	<p>Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 7.40</p> <p>Constituents: 5% Trehalose, PBS</p> <p>Lyophilized from 0.22 µm filtered solution.</p> <p>5-10% trehalose is commonly used for freeze drying, and after reconstitution, the trehalose is mostly about 3-5%</p>
Reconstitution	Reconstitute with sterile deionized water to a concentration of 400 µg/ml.

General Info

Function	<p>Non-catalytic component of the multisynthase complex. Stimulates the catalytic activity of cytoplasmic arginyl-tRNA synthase. Binds tRNA. Possesses inflammatory cytokine activity. Negatively regulates TGF-beta signaling through stabilization of SMURF2 by binding to SMURF2 and inhibiting its SMAD7-mediated degradation. Involved in glucose homeostasis through induction of glucagon secretion at low glucose levels. Promotes dermal fibroblast proliferation and wound repair. Regulates KDELR1-mediated retention of HSP90B1/gp96 in the endoplasmic reticulum. Plays a role in angiogenesis by inducing endothelial cell migration at low concentrations and endothelial cell apoptosis at high concentrations. Induces maturation of dendritic cells and monocyte cell adhesion. Modulates endothelial cell responses by degrading HIF-1A through interaction with PSMA7.</p>
Involvement in disease	<p>Defects in AIMP1 are the cause of leukodystrophy hypomyelinating type 3 (HLD3) [MIM:260600]. A severe autosomal recessive hypomyelinating leukodystrophy characterized by early infantile onset of global developmental delay, lack of development, lack of speech acquisition, and peripheral spasticity associated with decreased myelination in the central nervous system.</p>
Sequence similarities	Contains 1 tRNA-binding domain.
Post-translational modifications	Cleaved by caspase-7 in response to apoptosis to produce EMAP-II.
Cellular localization	Nucleus. Cytoplasm > cytosol. Cytoplasmic vesicle > secretory vesicle. Secreted. Endoplasmic reticulum. Golgi apparatus. Enriched in secretory vesicles of pancreatic alpha cells and secreted from the pancreas in response to low glucose levels (By similarity). Also secreted in response to hypoxia and both apoptotic and necrotic cell death.

Images



SDS-PAGE - Recombinant Human EMAP II/AIMP1 protein (His tag) (ab219664)

ab219664 under reducing (R) conditions.

The gel was stained overnight with Coomassie Blue.

The purity of the protein is greater than 95%.

The protein migrates as 36 kDa under reducing (R) conditions.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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