Proteins



Product Data Sheet

JAM-A/CD321 Protein, Rat (HEK293, His)

Cat. No.: HY-P73853

Synonyms: Junctional Adhesion Molecule A; JAM-A; JAM-1; PAM-1; CD321; F11R; JCAM

Species:

HEK293 Source:

Q9JHY1 (K27-G238) Accession:

Gene ID: 116479

Molecular Weight: Approximately 25&28 kDa due to the glycosylation

PROPERTIES

AA Sequence	
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KGSVYSPQTA	VQVPENDSVK	LPCIYSGFSS	PRVEWKFVQG
$S\;T\;T\;A\;L\;V\;C\;Y\;N\;N$	QITVPYADRV	TFSSSGITFS	SVTRKDNGEY
$T\;C\;M\;V\;S\;E\;D\;G\;G\;Q$	NYGEVSIHLT	VLVPPSKPTV	SIPSSVTIGN
RAVLTCSEHD	GSPPSEYSWF	KDGVPMLTAD	AKKTRAFINS
SYTIDPKSGD	LVFDPVSAFD	SGEYYCEAQN	GYGTAMRSEA

VRMEAVELNV G

Biological Activity

Measured by the ability of the immobilized protein to inhibit the adhesion of Vitronectin on HUVEC cells. The ED₅₀ for this effect is 0.1574 µg/mL in the presence of 10 ng/mL Vitronectin. Corresponding to a specific activity is 6353.24 U/mg.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than $100~\mu g/mL$ in ddH_2O . For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The JAM-A/CD321 protein plays a crucial role in the formation of tight junctions in epithelial cells. It is involved in the early stages of cell junction development and recruits PARD3. However, the formation of the PARD6-PARD3 complex may hinder the interaction between PARD3 and JAM1, leading to the prevention of tight junction assembly. Moreover, JAM-A/CD321 is

involved in regulating the transmigration of monocytes, which is essential for maintaining the integrity of the epithelial barrier. It also acts as a ligand for integrin alpha-L/beta-2, facilitating the transmigration of memory T-cells and neutrophils. Additionally, JAM-A/CD321 interacts with the ninth PDZ domain of MPDZ and the first PDZ domain of PARD3, with the association between PARD3 and PARD6B possibly disrupting this interaction. Furthermore, it interacts with ITGAL (via I-domain).

Caution: Product has not been fully validated for medical applications. For research use only.

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