JAML/AMICA Protein, Human (HEK293, His)

Cat. No.:	HY-P75895
Synonyms:	Junctional adhesion molecule-like; JAML; AMICA1; CREA7-1
Species:	Human
Source:	HEK293
Accession:	Q86YT9/NP_001091996.1 (L20-L275)
Gene ID:	120425
Molecular Weight:	Approximately 39 kDa

PROPERTIES

AA Sequence	L N D L N V S P P E L T V H V G D S A L M G C V F Q S T E D K C I F K I D W T L S P G E H A K D E Y V L Y Y Y S N L S V P I G R F Q N R V H L M G D I L C N D G S L L L Q D V Q E A D Q G T Y I C E I R L K G E S Q V F K K A V V L H V L P E E P K E L M V H V G G L I Q M G C V F Q S T E V K H V T K V E W I F S G R R A K E E I V F R Y Y H K L R M S V E Y S Q S W G H F Q N R V N L V G D I F R N D G S I M L Q G V R E S D G G N Y T C S I H L G N L V F K K T I V L H V S P E E P R T L V T P A A L R P L V L G G N Q L
Biological Activity	Measured by the ability of the immobilized protein to support the adhesion of A549 Human non-small cell lung cancer cells. When 5×10^4 cells/well are added to rhAMICA/Fc Chimera coated plates (10 µg/mL, 100 µL/well), approximately 87.96% will adhere after 1 hour at 37℃.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, 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 µg/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	JAML, a transmembrane protein residing on the plasma membrane of leukocytes, serves as a crucial regulator of cell

migration and activation by engaging with CXADR, a receptor located on adjacent epithelial and endothelial cells. This interaction, pivotal for the activation of gamma-delta T-cells, a subset involved in tissue homeostasis and repair, induces downstream signaling events in response to epithelial CXADR-binding. JAML-mediated signaling, facilitated by PI3-kinase and MAP kinases, leads to T-cell proliferation and the production of cytokines and growth factors, fostering tissue repair. Additionally, JAML plays a pivotal role in controlling leukocyte transmigration within epithelial and endothelial tissues through adhesive interactions with CXADR. In its homodimeric form, JAML actively participates in leukocyte-endothelial cell adhesion, highlighting its multifaceted role in orchestrating immune responses and tissue repair processes. Furthermore, JAML's interaction with integrins ITGA4 and ITGB1 suggests a regulatory mechanism for leukocyte-endothelial cell adhesion by modulating JAML homodimerization.

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