

## Product Data Sheet

## JAML/AMICA Protein, Mouse (HEK293, His)

Cat. No.:	HY-P76465
Synonyms:	Junctional adhesion molecule-like; Dendritic cell-specific protein CREA7; mCrea7; Amica1; Gm638
Species:	Mouse
Source:	HEK293
Accession:	Q80UL9 (M1-L281)
Gene ID:	270152
Molecular Weight:	Approximately 47.7 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
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	Junctional adhesion molecule-like (JAML), also known as AMICA, is a transmembrane protein located on the plasma membrane of leukocytes, governing their migration and activation by interacting with CXADR, a receptor present on adjacent epithelial and endothelial cells. This interaction plays a crucial role in activating gamma-delta T-cells, a T-cell subpopulation residing in epithelia, contributing to tissue homeostasis and repair. Upon binding to epithelial CXADR, JAML initiates downstream signaling in gamma-delta T-cells through PI3-kinase and MAP kinases, leading to T-cell proliferation and the production of cytokines and growth factors that stimulate tissue repair. JAML also regulates the transmigration of leukocytes within epithelial and endothelial tissues by engaging in adhesive interactions with epithelial and endothelial CXADR. In its homodimeric form, JAML is particularly active in mediating leukocyte-endothelial cell adhesion. Additionally, JAML interacts with integrin alpha-4/beta-1 (ITGA4 and ITGB1), suggesting a role in the regulation of leukocyte-endothelial cell adhesion by controlling JAML homodimerization.

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

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