

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse AMICA/JAML in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 20% cross-reactivity with recombinant human AMICA is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse AMICA/JAML Leu23-Leu281 Accession # Q80UL9
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse AMICA/JAML Fc Chimera (Catalog # 3106-AM)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AMICA, also known as JAML, is a 65 kDa, type I transmembrane glycoprotein that belongs to the junctional adhesion molecule (JAM) subset of the immunoglobulin superfamily (1). JAM family proteins contribute to intercellular connections within epithelial and endothelial cell layers and mediate their interactions with various hemopoietic cells (1). The mouse AMICA cDNA encodes a 379 amino acid (aa) precursor that includes a 20 aa signal sequence, a 261 aa extracellular domain (ECD) with two Ig-like domains, a 21 aa transmembrane segment, and a 77 aa cytoplasmic domain (2). In contrast to other JAM family proteins, AMICA does not contain a cytoplasmic PDZ-binding motif (3). Within the ECD, mouse AMICA shares 58% and 77% aa sequence identity with human and rat AMICA, respectively. It shares 17%-23% aa sequence identity with the ECDs of mouse JAM-A, -B, -C, and JAM4. AMICA is expressed on the surface of granulocytes and monocytes and is upregulated during the differentiation of myeloid leukemia cells (2, 3). A motif in the ECD, which promotes dimerization of other JAM family proteins, is required for surface localization of AMICA (2). AMICA mediates adhesion of monocytes to endothelial cells (2) and neutrophil migration across epithelial cell monolayers (3). This latter function involves specific interactions of AMICA with CXADR in epithelial tight junctions (3). In particular, the membrane proximal Ig-like domain of AMICA binds the membrane-distal Ig-like domain of CXADR (3). AMICA does not appear to interact homophilically, as neutrophils adhere to immobilized CXADR but not to immobilized AMICA (3).

References:

1. Mandell, K.J. and C.A. Parkos (2005) *Adv. Drug Deliv. Rev.* **57**:857.
2. Moog-Lutz, C. *et al.* (2003) *Blood* **102**:3371.
3. Zen, K. *et al.* (2005) *Mol. Biol. Cell* **16**:2694.