Human AMICA/JAML Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3449

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human AMICA/JAML in ELISAs and Western blots. In sandwich ELISAs, less than 0.3% cross-reactivity with recombinant mouse AMICA, recombinant human (rh) JAM-A, rhJAM-B, and rhJAM-C is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human AMICA/JAML Leu20-Leu275 Accession # Q86YT9
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 Human AMICA/JAML Fc Chimera (Catalog # 3449-AM)
Flow Cytometry	2.5 µg/10^6 cells	Human peripheral blood monocytes
Human AMICA Sandwich Immunoassay		**Reagent**
ELISA Capture	0.2-0.8 µg/mL	Human AMICA/JAML Antibody (Catalog # AF3449)
ELISA Detection	0.1-0.4 µg/mL	Human AMICA/JAML Biotinylated Antibody (Catalog # BAF3449)
Standard		Recombinant Human AMICA/JAML Fc Chimera (Catalog # 3449-AM)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

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.** ● 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 (adhesion molecule, interacting with CXADR antigen 1), also known as JAML, is a 65 kDa, heavily glycosylated transmembrane protein that belongs to the junctional adhesion molecule (JAM) subset of the immunoglobulin superfamily (1). JAM family molecules contribute to intercellular connections within epithelial and endothelial cell layers, and mediate their interactions with various hemopoietic cells (1). The human AMICA cDNA encodes a 384 amino acid (aa) precursor that includes a 19 aa signal sequence, a 256 aa extracellular domain (ECD) with two Ig-like domains, a 21 aa transmembrane segment, and a 98 aa cytoplasmic domain (2). Alternative splicing may generate isoforms with N- and C-terminal deletions. In contrast to other JAM family proteins, AMICA does not contain a cytoplasmic PDZ-binding motif (3). Within the ECD, human AMICA shares 58% and 63% aa sequence identity with mouse and rat AMICA, respectively. It shares 18%-20% aa sequence identity with the ECDs of human 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 the adhesion of monocytes to endothelial cells (2) and neutrophil migration across epithelial cell monolayers (3). This latter function involves specific interactions of AMICA with the coxsackie virus and adenovirus receptor (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.

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