Human/Mouse/Rat Jagged 1 APC-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 188331

Catalog Number: FAB1277A

100 TESTS

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Jagged 1. In direct ELISAs, no cross–reactivity with recombinant human Jagged 2 is observed. Stains human Jagged 1 transfectants but not the parental cell line or human Jagged 2 transfectants in flow cytometry.
Source	Monoclonal Mouse IgG_{2B} Clone # 188331
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0-derived recombinant human Jagged 1 Ser32-Asp296 Accession # P78504
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

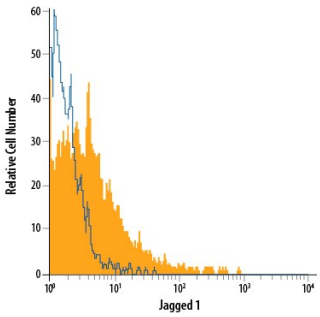
APPLICATIONS

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
Flow Cytometry	10 µL/10^6 cells	See Below

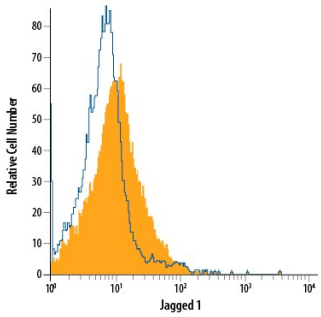
DATA

Flow Cytometry



Detection of Jagged 1 in K562 Human Cell Line by Flow Cytometry. K562 human chronic myelogenous leukemia cell line was stained with Mouse Anti-Human/Mouse/Rat Jagged 1 APC-conjugated Monoclonal Antibody (Catalog # FAB1277A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). View our protocol for Staining Membrane-associated Proteins.

Flow Cytometry



Detection of Jagged 1 in bEnd.3 Mouse Cell Line by Flow Cytometry. bEnd.3 mouse endothelioma cell line was stained with Mouse Anti-Human/Mouse/Rat Jagged 1 APC-conjugated Monoclonal Antibody (Catalog # FAB1277A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUND

Jagged 1 is a 180 kDa type I transmembrane glycoprotein and member of the Delta-Serrate-Lag-2 (DSL) family of ligands that activate LIN12/Notch proteins. Human Jagged 1 is synthesized as a 1218 amino acid (aa) precursor that contains a 33 aa signal sequence, a 1034 aa extracellular domain (ECD), a 26 aa transmembrane segment, and a 125 aa cytoplasmic region. The ECD contains a DSL domain (aa 185–229), a cysteine-rich region, 15 EGF-like repeats, of which many bind calcium, and nine potential sites for N-linked glycosylation. Mature human Jagged 1 shares 97% and 96% aa identity with mature mouse and rat Jagged 1, respectively. Jagged 1 is widely expressed in adult and fetal tissues. Jagged-Notch signaling specifies cell fate, regulates pattern formation, defines boundaries between different cell types, and modulates cell proliferation and differentiation, especially during hematopoiesis, myogenesis, neurogenesis, and development of vasculature (1–8). Mutations in human Jagged 1 are the cause of Alagille syndrome, an autosomal-dominant disorder characterized by intrahepatic cholestasis and abnormalities of heart, eye, vertebrae, as well as characteristic facial appearance (9, 10).

References:

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