

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Jagged 2 in direct ELISAs and Western blots. In Western blots, approximately 35% cross-reactivity with recombinant human Jagged 1 is observed and less than 1% cross-reactivity with recombinant rat Jagged 1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Jagged 2 Met27-Asp307 Accession # Q9Y219
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

BACKGROUND

Human Jagged 2 is a 131 kDa (predicted) member of the Delta-Serrate-Lag-2 (DSL) family of ligands. This family activates LIN12/Notch proteins and thereby regulates cell fate determination during development (1-5). It is a type 1 transmembrane protein that is synthesized as a 1238 amino acid (aa) precursor. It contains a 23 aa signal sequence, a large 1057 aa extracellular region, a 21 aa transmembrane region, and a short 137 aa cytoplasmic region. The extracellular region contains four potential N-linked glycosylation sites, a DSL domain, 16 EGF-like repeats (many of which are also sites of calcium binding), a von Willebrand factor (vWF) type C domain, and a cysteine-rich region just proximal to the transmembrane segment (2). There are two isoforms for human Jagged 2, named long and short. The short form lacks a splicing variant region (aa 421-461) that is present in the long form of the protein. Human Jagged 2 shares 90% and 87% aa sequence identity with mouse and rat Jagged 2, respectively. During murine embryonic development, Jagged 2 is expressed highest in fetal thymus, epidermis, foregut, dorsal root ganglia, and inner ear (2). In 2 week old mice, the Jagged 2 transcript is most abundant in heart, lung, thymus, skeletal muscle, brain, and testis (2). Functionally, it is suggested that Jagged 2 engages the Notch1 pathway of signal transduction (2). It is involved in the development of the mammalian limb, branchial arches, central and peripheral nervous systems, T cell lineage differentiation, natural killer cells, and the establishment of functional natural killer cell lines (3, 5, 6).

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