Mouse Syndecan-2/CD362 Alexa Fluor® 405-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6585V
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Syndecan-2/CD362 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Syndecan-2/CD362 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Syndecan-2/CD362 Glu19-Phe141 Accession # P43407
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.*

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	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

Syndecan-2, previously known as fibroglycan or heparan sulfate proteoglycan, is a member of the syndecan family of type 1 transmembrane proteins capable of carrying heparan sulfate (HS) and chondroitin sulfate glycosaminoglycans. The four vertebrate syndecans show conserved cytoplasmic domains and divergent extracellular portions (except for GAG attachment sites). Among the Syndecans, Syndecan-2 is most similar to Syndecan-4 (1-3). Mouse Syndecan-2 is synthesized as a 202 amino acid (aa) core protein with an 18 aa signal sequence, a 127 aa extracellular domain (ECD), a 25 aa transmembrane region and a 32 aa cytoplasmic tail (4). The ECD of mouse Syndecan-2 contains three closely-spaced consensus Ser-Gly sequences for the attachment of HS side chains. It shares 76%, 86%, 74% and 72% aa identity with the ECD of human, rat, porcine and bovincoe Syndecan-2, respectively. The cytoplasmic tail has both serine and tyrosine phosphorylation sites. Addition of 20 - 80 disaccharides per side chain adds considerably to the size of the 22 kDa core protein. Non-covalent homodimerization of Syndecan-2, or heterodimerization with Syndecan-4, is dependent on the transmembrane domain (5, 6). Syndecan-2 is expressed in cells of mesenchymal origin, neuronal and epithelial cells, and is the predominant syndecan expressed during embryonic development. Expression is up-regulated in several cancer cell lines (7). After induction in macrophages by inflammatory mediators, Syndecan-2 selectively binds FGF basic, VEGF and EGF (8). Syndecan-2 expressed on human primary osteoblasts binds GM-CSF and may function as a co-receptor (9). Activated endothelial cell Syndecan-2 specifically binds IL-8 and may participate in promoting neutrophil extravasation by forming a chemotactic IL-8 gradient (10). Typically, cytokine, chemokine and extracellular matrix protein binding occurs through interaction with HS side chains, but the Syndecan-2 extracellular domain can bind TGF-β directly via protein-protein interaction (11).

PRODUCT SPECIFIC NOTICES

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