Mouse Collagen XIII α1 Alexa Fluor® 405-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4627V
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Collagen XIII α1 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) COL13A1v4 is observed, and less than 1% cross-reactivity with rhCOL4A1, rhCOL25A1, rhCOL3A1, and rhCOL1A1 i
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Collagen XIII α1 Glu107-Gln565 Accession # AAH34164
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.*

Western Blot	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

Collagen XIII α1 is an 85-95 kDa protein in the type 2 transmembrane collagen family (1). Mature mouse Collagen XIII α1 consists of a 40 amino acid (aa) cytoplasmic domain, a 19 aa transmembrane segment, and a 692 aa extracellular domain (ECD). The ECD contains three collagenous regions separated by shorter non-collagenous regions (2, 3). Within comparable regions of the ECD, mouse Collagen XIII α1 shares 85% and 88% aa sequence identity with human and rat Collagen XIII α1, respectively. Mouse Collagen XIII α1 is extensively spliced, with some isoforms showing a tissue specific distribution (2, 4). Collagen XIII α1 is widely expressed during development and in the adult (4, 5). It localizes to intercellular adherens junctions and cell-matrix focal adhesions (6, 7). Collagen XIII α1 assembles into disulfide-linked trimers, a process that is enhanced by proline hydroxylation (2, 8). Trimerization involves triple helix formation within the collagenous domains, although portions of the non-collagenous regions can also form coiled coils (8-10). The ECD of trimeric Collagen XIII α1 is an extended rod-like structure with two flexible hinges that correspond to non-collagenous regions (11). Collagen XIII α1 clusters in cholesterol-rich domains on the plasma membrane (2, 12), and it can be cleaved from the cell surface or intracellularly by a furin-like protease (12). Collagen XIII α1 binds the extracellular matrix molecules fibronectin, heparin, integrin α1, nidogen-2, and perlecan (11, 13). The shed ECD retains its ability to bind fibronectin and can interfere with matrix formation (14).

PRODUCT SPECIFIC NOTICES

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