Human Collagen XIII α1 Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 584718

Catalog Number: FAB6346V

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Collagen XIII α1 in direct ELISAs. In direct ELISAs, 100% cross-reactivity with recombinant mouse Collagen XIII α1 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 584718
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Collagen XIII α1 Glu109-Pro668 Accession # Q5TAT6
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.*

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

COL13A1 (collagen 13-alpha 1) is a 95 kDa member of the transmembrane group of the collagen family of proteins. It is a type II transmembrane glycoprotein that is expressed by multiple cell types, including fibroblasts, endothelial cells, and cardiac muscle. COL13A1 forms disulfide-linked homotrimers and participates in cell adhesion by binding to the Integrin α1 subunit, Nidogen-2, and Fibronectin. Human COL13A1 is 717 amino acids (aa) in length. It has an N-terminal 44 aa cytoplasmic region plus a 656 aa extracellular domain (ECD) (aa 62-717). The ECD contains four non-collagenous (NC) regions (aa 1-121, aa 217-269, aa 442-463, and aa 700-717) interspersed among three collagenous (COL) domains (aa 122-216, aa 270-441, and aa 464-699). Multiple splice forms exist and typically involve deletions of 12-30 aa between aa 220-705. Proteolytic cleavage after Arg108 generates an 85-90 kDa soluble form. Over aa 109-668 (based on a human isoform [NP_542992} that shows a deletion of aa 239-260, aa 551-565, and aa 616-627), human COL13A1 shares 91% aa sequence identity with mouse COL13A1.

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