

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Collagen XIII in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant mouse COL13A1 and less than 1% cross-reactivity with recombinant human (rh) COL23A1 and rhCOL25A1 is observed.                        |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant human Collagen XIII<br>Glu109-Leu668<br>Accession # NP_542992                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

#### 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  $\alpha$ 1 subunit, nidogen-2, and fibronectin. Human COL13A1 is 717 amino acids (aa) in length (SwissProt #:Q5TAT6). It has an N-terminal 44 amino acid cytoplasmic region plus a 656 amino acid extracellular domain (ECD) (aa 62-717). The ECD contains four non-collagenous (NC) regions (aa 1-121, 217-269, 442-463, and 700-717) interspersed among three collagenous (COL) domains (aa 122-216, 270-441, and 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, 551-565, and 616-627), human COL13A1 shares 91% aa sequence identity with mouse COL13A1.

#### PRODUCT SPECIFIC NOTICES

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