

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Collagen XIII $\alpha$ 1 in direct ELISAs. In direct ELISAs, 100% cross-reactivity with recombinant mouse Collagen XIII $\alpha$ 1 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 584718
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Collagen XIII $\alpha$ 1 Glu109-Pro668 Accession # Q5TAT6
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

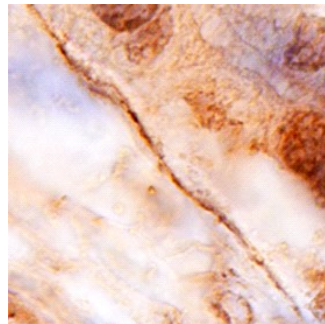
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunohistochemistry</b>	8-25 $\mu$ g/mL	See Below

## DATA

### Immunohistochemistry



#### Collagen XIII $\alpha$ 1 in Human Placenta.

Collagen XIII  $\alpha$ 1 was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human Collagen XIII  $\alpha$ 1 Monoclonal Antibody (Catalog # MAB6346) at 15  $\mu$ g/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to basement membrane. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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. 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.