

DESCRIPTION

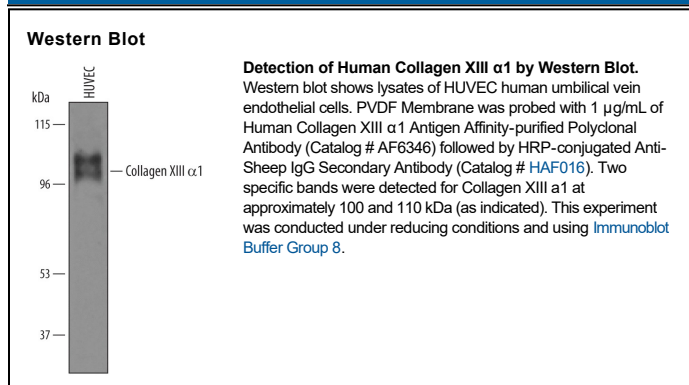
Species Reactivity	Human
Specificity	Detects human Collagen XIII in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant mouse COL13A1 and less than 1% cross-reactivity with recombinant human (rh) COL23A1 and rhCOL25A1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Collagen XIII Glu109-Leu668 Accession # NP_542992
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ 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.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	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 $^{\circ}$ C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied. • 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution. • 6 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution.

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 α 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.