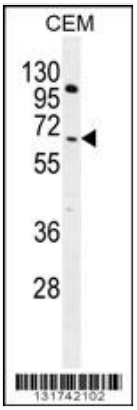
COL8A2 Antibody – Rabbit Polyclonal

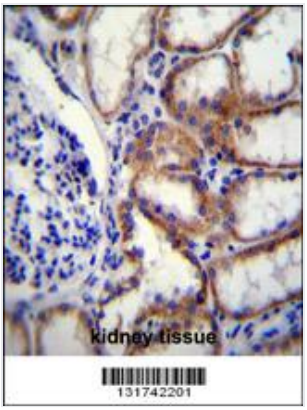
PRODUCT OVERVIEW

Product Name	COL8A2, Polyclonal Antibody
Full Product Name	COL8A2 Antibody (C-term)
Product Gene Name	anti-COL8A2 antibody
Product Synonym Names	Collagen alpha-2(VIII) chain; Endothelial collagen; COL8A2
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 0.5 (lot specific)
Specificity	This COL8A2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 571-599 amino acids from the C-terminal region of human COL8A2.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	COL8A2 peptide (MBS9218683) is used for blocking the activity of COL8A2 antibody (MBS9207971)
Molecular Weight	67244
Immunogen Sequence Positions	571-599
OMIM	120252
3D Structure	ModBase 3D Structure for P25067
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-COL8A2 antibody	Signal Transduction
Applications Tested/Suitable for anti-COL8A2 antibody	ELISA (EIA), Immunohistochemistry (IHC), Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-COL8A2 antibody	WB~~1:1000
Related Product Information for anti-COL8A2 antibody	This gene encodes the alpha 2 chain of type VIII collagen. The protein is a major component of the basement membrane of the corneal endothelium and forms homo- or heterotrimers with alpha 1 (VIII) type collagens. Defects in this gene are associated with Fuchs endothelial corneal dystrophy and posterior polymorphous corneal dystrophy type 2.

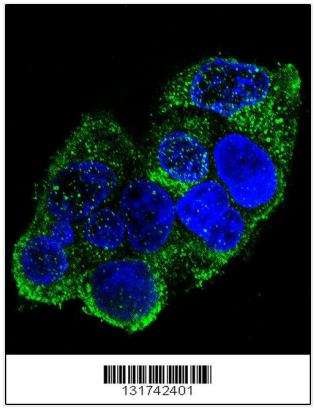
Product References and Citations for anti-COL8A2 antibody	Hemadevi, B., et al. BMC Ophthalmol 10, 3 (2010) : Afshari, N.A., et al. Invest. Ophthalmol. Vis. Sci. 50(3):1093-1097(2009) Liskova, P., et al. Br J Ophthalmol 91(12):1717-1718(2007) Aldave, A.J., et al. Cornea 26(8):963-965(2007) Zhang, C., et al. Trans Am Ophthalmol Soc 104, 85-97 (2006) :
Other Notes	Small volumes of anti-COL8A2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for COL8A2 purchase	MBS9207971 is an antibody targeting COL8A2. Also known as COL8A2 Antibody (C-term). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-COL8A2 antibody
COL8A2 Antibody (C-term) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the COL8A2 antibody detected the COL8A2 protein (arrow).



Immunohistochemistry (IHC) of anti-COL8A2 antibody
COL8A2 Antibody (C-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of COL8A2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Immunofluorescence (IF) of anti-COL8A2 antibody
Confocal immunofluorescent analysis of COL8A2 Antibody (C-term) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COL8A2. It may not necessarily be applicable to this product.

NCBI GI #	32964830
NCBI GeneID	1296
NCBI Accession #	NP_005193.1
UniProt Primary Accession #	P25067
UniProt Secondary Accession #	Q5JV31; Q8TEJ5

UniProt Related Accession #	P25067
GenBank Nucleotide #	NM_005202.3
NCBI Official Full Name	collagen alpha-2(VIII) chain isoform 1
NCBI Official Synonym Full Names	collagen, type VIII, alpha 2
NCBI Official Symbol	COL8A2
NCBI Official Synonym Symbols	FECD; PPCD; FECD1; PPCD2
UniProt Protein Name	Collagen alpha-2(VIII) chain
UniProt Synonym Protein Names	Endothelial collagen
UniProt Gene Name	COL8A2
UniProt Entry Name	CO8A2_HUMAN
NCBI Protein Information	collagen alpha-2(VIII) chain
NCBI Summary for COL8A2	This gene encodes the alpha 2 chain of type VIII collagen. This protein is a major component of the basement membrane of the corneal endothelium and forms homo- or heterotrimers with alpha 1 (VIII) type collagens. Defects in this gene are associated with Fuchs endothelial corneal dystrophy and posterior polymorphous corneal dystrophy type 2. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2014]
UniProt Comments for COL8A2	COL8A2: Macromolecular component of the subendothelium. Major component of the Descemet's membrane (basement membrane) of corneal endothelial cells. Also component of the endothelia of blood vessels. Necessary for migration and proliferation of vascular smooth muscle cells and thus, has a potential role in the maintenance of vessel wall integrity and structure, in particular in atherogenesis. Defects in COL8A2 are the cause of corneal dystrophy Fuchs endothelial type 1 (FECD1). It is an ocular disorder caused by loss of endothelium of the central cornea. It is characterized by focal wart-like guttata that arise from Descemet membrane and develop in the central cornea, epithelial blisters, reduced vision and pain. Descemet membrane is thickened by abnormal collagenous deposition. Defects in COL8A2 are the cause of posterior polymorphous corneal dystrophy type 2 (PPCD2). PPCD is a rare bilateral familial disorder of the corneal epithelium, and is inherited in a autosomal dominant pattern. The clinical features usually present earlier than FECD, being from birth onwards. The disorder is characterized by alterations of Descemet membrane presenting as vesicles, opacities or band-like lesions on slit- lamp examination and specular microscopy. Affected patient typically are asymptomatic. Protein type: Extracellular matrix; Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 1p34.2 Cellular Component: extracellular matrix; proteinaceous extracellular matrix; collagen; endoplasmic reticulum lumen; extracellular region; basement membrane Molecular Function: protein binding, bridging; extracellular matrix structural constituent Biological Process: collagen catabolic process; extracellular matrix disassembly; cell-cell adhesion; epithelial cell proliferation; extracellular matrix organization and biogenesis; camera-type eye morphogenesis; angiogenesis Disease: Corneal Dystrophy, Posterior Polymorphous, 2; Corneal Dystrophy, Fuchs Endothelial, 1
Research Articles on COL8A2	**1.** mutations in the COL8A2 gene do not contribute to all cases of early-onset early-onset Fuchs' endothelial corneal dystrophy .
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