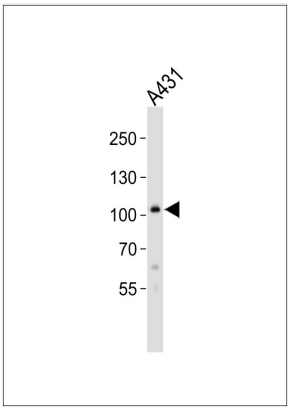
COL6A1 Antibody – Rabbit Polyclonal

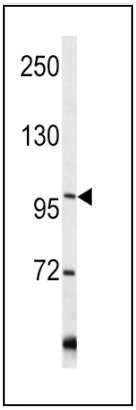
PRODUCT OVERVIEW

Product Name	COL6A1, Polyclonal Antibody
Full Product Name	COL6A1 Antibody (C-term)
Product Gene Name	anti-COL6A1 antibody
Product Synonym Names	Collagen alpha-1(VI) chain; COL6A1
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 2 (lot specific)
Specificity	This COL6A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 831-858 amino acids from the C-terminal region of human COL6A1.
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	COL6A1 peptide (MBS9226182) is used for blocking the activity of COL6A1 antibody (MBS9214063)
Molecular Weight	108529
Immunogen Sequence Positions	831-858
OMIM	120220
3D Structure	ModBase 3D Structure for P12109
Antigen Type	Synthetic Peptide
Crown Antibody	Yes
Antigen Source	HUMAN
Product Categories/Family for anti-COL6A1 antibody	Crown Antibodies; Cancer; Signal Transduction
Applications Tested/Suitable for anti-COL6A1 antibody	Western Blot (WB), ELISA (EIA), Immunohistochemistry (IHC), Immunofluorescence (IF), Flow Cytometry (FC/FACS)
Application Notes for anti-COL6A1 antibody	WB~~1:1000
Related Product Information for anti-COL6A1 antibody	The collagens are a superfamily of proteins that play a role in maintaining the integrity of various tissues. Collagens are extracellular matrix proteins and have a triple-helical domain as their common structural element. Collagen VI is a major structural component of microfibrils. The basic structural unit of collagen VI is a heterotrimer of the alpha1(VI), alpha2(VI), and alpha3(VI) chains. The protein COL6A1 is the alpha 1 subunit of type VI collagen (alpha1(VI) chain). Mutations in the genes that code for the collagen VI subunits result in the autosomal dominant disorder, Bethlem myopathy.

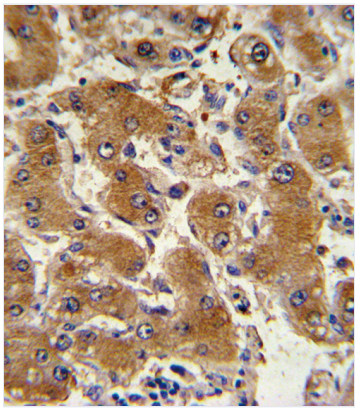
Product References and Citations for anti-COL6A1 antibody	Martoni,E., Hum. Mutat. 30 (5), E662-E672 (2009) Kim,T.H., J. Rheumatol. 35 (9), 1849-1852 (2008) Fujita,A., Genet. Mol. Res. 7 (2), 371-378 (2008)
Other Notes	Small volumes of anti-COL6A1 antibody vial(s) may occasionally become entrapped in 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 COL6A1 purchase	MBS9214063 is an antibody targeting COL6A1. Also known as COL6A1 Antibody (C-term). Reactive in Human. Host: Rabbit.



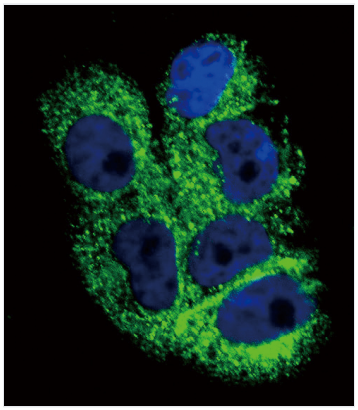
Western Blot (WB) of anti-COL6A1 antibody
Western blot analysis of lysate from A431 cell line, using COL6A1 Antibody (C-term). MBS9214063 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



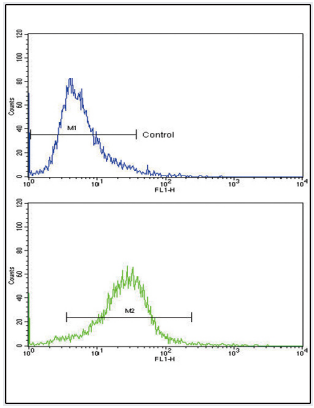
Western Blot (WB) of anti-COL6A1 antibody
Western blot analysis of COL6A1 antibody (C-term) in Y79 cell line lysates (35ug/lane). COL6A1 (arrow) was detected using the purified Pab.



Immunohistochemistry (IHC) of anti-COL6A1 antibody
Formalin-fixed and paraffin-embedded human hepatocarcinoma with COL6A1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Immunofluorescence (IF) of anti-COL6A1 antibody
Confocal immunofluorescent analysis of COL6A1 Antibody (C-term) with A2058 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).DAPI was used to stain the cell nuclear (blue).



Flow Cytometry (FC/FACS) of anti-COL6A1 antibody
Flow cytometric analysis of 293 cells using COL6A1 Antibody (C-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COL6A1. It may not necessarily be applicable to this product.

NCBI GI #	87196339
NCBI GeneID	1291
NCBI Accession #	NP_001839.2
UniProt Primary Accession #	P12109
UniProt Secondary Accession #	O00117; O00118; Q14040; Q14041; Q16258; Q7Z645; Q9BSA8
UniProt Related Accession #	P12109
GenBank Nucleotide #	NM_001848.2
NCBI Official Full Name	collagen alpha-1(VI) chain
NCBI Official Synonym Full Names	collagen, type VI, alpha 1
NCBI Official Symbol	COL6A1
NCBI Official Synonym Symbols	OPLL
UniProt Protein Name	Collagen alpha-1(VI) chain
Protein Family	Collagen
UniProt Gene Name	COL6A1
UniProt Entry Name	CO6A1_HUMAN
NCBI Protein Information	collagen alpha-1(VI) chain
NCBI Summary for COL6A1	The collagens are a superfamily of proteins that play a role in maintaining the integrity of various tissues. Collagens are extracellular matrix proteins and have a triple-helical domain as their common structural element. Collagen VI is a major structural component of microfibrils. The basic structural unit of collagen VI is a heterotrimer of the alpha1(VI), alpha2(VI), and alpha3(VI) chains. The alpha2(VI) and alpha3(VI) chains are encoded by the COL6A2 and COL6A3 genes, respectively. The protein encoded by this gene is the alpha 1 subunit of type VI collagen (alpha1(VI) chain). Mutations in the genes that code for the collagen VI subunits result in the autosomal dominant disorder, Bethlem myopathy. [provided by RefSeq, Jul 2008]

UniProt Comments for COL6A1	COL6A1: Collagen VI acts as a cell-binding protein. Defects in COL6A1 are a cause of Bethlem myopathy (BM). BM is a rare autosomal dominant proximal myopathy characterized by early childhood onset (complete penetrance by the age of 5) and joint contractures most frequently affecting the elbows and ankles. Defects in COL6A1 are a cause of Ullrich congenital muscular dystrophy (UCMD); also known as Ullrich scleroatonic muscular dystrophy. UCMD is an autosomal recessive congenital myopathy characterized by muscle weakness and multiple joint contractures, generally noted at birth or early infancy. The clinical course is more severe than in Bethlem myopathy. Belongs to the type VI collagen family. Protein type: Extracellular matrix; Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 21q22.3 Cellular Component: extracellular matrix; proteinaceous extracellular matrix; protein complex; membrane; endoplasmic reticulum lumen; lysosomal membrane; extracellular region; sarcolemma; collagen type VI Molecular Function: platelet-derived growth factor binding Biological Process: osteoblast differentiation; axon guidance; extracellular matrix disassembly; collagen catabolic process; extracellular matrix organization and biogenesis; cell adhesion Disease: Bethlem Myopathy; Ullrich Congenital Muscular Dystrophy
Research Articles on COL6A1	**1.** In UCDM, 1 mutation was indentified in COL6A1 in Chinese patients.
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