Collagen Type III (COL3) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Collagen Type III (COL3), Polyclonal Antibody
Full Product Name	Cy3-Linked Polyclonal Antibody to Collagen Type III (COL3)
Product Gene Name	anti-COL3 antibody
Product Synonym Names	Collagen Type III
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. 0.01M PBS, pH7.4, containing 0.05% Proclin-300, 50% glycerol.
Purity/Purification	Antigen-specific affinity chromatography followed by Protein A affinity chromatography
Concentration	>=0.5mg/mL (Please refer to the vial label for the specific concentration.) (lot specific)
Preparation and Storage	Store at 2 degree C to 8 degree C for frequent use, -20 degree C for 12 months Stable for 12 months if correctly stored.
Matching Pairs	Antibody: COL3 (MBS2146491) Immunogen: COL3a1 (MBS2154064)
Molecular Weight	138,564 Da
Immunogen Sequence Positions	Gly1059~Leu1466
Chromosome Location	Chromosome: 2; NC_000002.11 (189839099..189877472). Location: 2q31
OMIM	100070
3D Structure	ModBase 3D Structure for P02461
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Conjugation	Cy3
Product Categories/Family for anti-COL3 antibody	Polyclonal Antibodies (Primary Abs); Primary, Cy3-conjugated; Metabolic pathway
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-COL3 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunoprecipitation (IP)
Application Notes for anti-COL3 antibody	WB: 0.5-2ug/mL IHC: 5-20ug/mL ICC: 5-20ug/mL
Related Product Information for anti-COL3 antibody	MBS2146491 is an antibody targeting COL3. Also known as Cy3-Linked Polyclonal Antibody to Collagen Type III (COL3). Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-COL3 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COL3. It may not necessarily be applicable to this product.

NCBI GI #	4502951
NCBI GeneID	1281
NCBI Accession #	NP_000081.1
UniProt Primary Accession #	P02461
UniProt Secondary Accession #	P78429; Q15112; Q16403; Q53S91; Q541P8; Q6LDB3; Q6LDJ2; Q6LDJ3; Q7KZ56; Q8N6U4; D3DPH4
UniProt Related Accession #	P02461
GenBank Nucleotide #	NM_000090.3
NCBI Official Full Name	collagen alpha-1(III) chain preproprotein
NCBI Official Synonym Full Names	collagen, type III, alpha 1
NCBI Official Symbol	COL3A1
NCBI Official Synonym Symbols	EDS4A
UniProt Protein Name	Collagen alpha-1(III) chain
Protein Family	Zinc finger protein CONSTANS
UniProt Gene Name	COL3A1
UniProt Entry Name	CO3A1_HUMAN
NCBI Protein Information	collagen alpha-1(III) chain; collagen alpha-1(III) chain; collagen, fetal; alpha1 (III) collagen; Ehlers-Danlos syndrome type IV, autosomal dominant
NCBI Summary for COL3	This gene encodes the pro-alpha1 chains of type III collagen, a fibrillar collagen that is found in extensible connective tissues such as skin, lung, uterus, intestine and the vascular system, frequently in association with type I collagen. Mutations in this gene are associated with Ehlers-Danlos syndrome types IV, and with aortic and arterial aneurysms. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene. [provided by R. Dalgleish, Feb 2008]

UniProt Comments for COL3	CO3A1: Collagen type III occurs in most soft connective tissues along with type I collagen. Defects in COL3A1 are a cause of Ehlers-Danlos syndrome type 3 (EDS3); also known as benign hypermobility syndrome. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS3 is a form of Ehlers-Danlos syndrome characterized by marked joint hyperextensibility without skeletal deformity. Defects in COL3A1 are the cause of Ehlers-Danlos syndrome type 4 (EDS4). EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS4 is the most severe form of the disease. It is characterized by the joint and dermal manifestations as in other forms of the syndrome, characteristic facial features (acrogeria) in most patients, and by proneness to spontaneous rupture of bowel and large arteries. The vascular complications may affect all anatomical areas. Defects in COL3A1 are a cause of susceptibility to aortic aneurysm abdominal (AAA). AAA is a common multifactorial disorder characterized by permanent dilation of the abdominal aorta, usually due to degenerative changes in the aortic wall. Histologically, AAA is characterized by signs of chronic inflammation, destructive remodeling of the extracellular matrix, and depletion of vascular smooth muscle cells. Belongs to the fibrillar collagen family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Extracellular matrix; Secreted; Secreted, signal peptide; Motility/polarity/chemotaxis; Cell adhesion Chromosomal Location of Human Ortholog: 2q31 Cellular Component: extracellular matrix; extracellular space; endoplasmic reticulum lumen; extracellular region; collagen type III Molecular Function: integrin binding; protein binding; extracellular matrix structural constituent; metal ion binding; platelet-derived growth factor binding; SMAD binding Biological Process: skin development; integrin-mediated signaling pathway; receptor-mediated endocytosis; axon guidance; platelet activation; extracellular matrix organization and biogenesis; collagen fibril organization; wound healing; heart development; cell-matrix adhesion; negative regulation of immune response; positive regulation of Rho protein signal transduction; extracellular matrix disassembly; collagen catabolic process; response to radiation; gut development; response to mechanical stimulus; response to cytokine stimulus; transforming growth factor beta receptor signaling pathway; fibril organization and biogenesis; cerebral cortex development; peptide cross-linking; skeletal development; aging Disease: Ehlers-danlos Syndrome, Type Iv, Autosomal Dominant; Ehlers-danlos Syndrome, Type Iii
Research Articles on COL3	**1.** This study indicates that SP, mediated via NK-1 R, increases collagen remodeling and leads to increased MMP3 mRNA and protein expression that is further enhanced by cyclic mechanical loading.
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