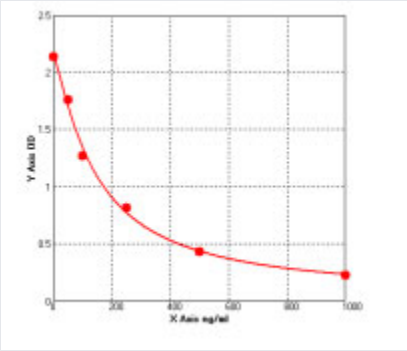
Collagen Type III (COL III) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Collagen Type III (Col III), ELISA Kit
Full Product Name	Human Collagen Type III ELISA Kit
Product Gene Name	Col III elisa kit
Product Synonym Names	Human Collagen Type III (Col III) ELISA Kit; Human Collagen Type III ELISA Kit; Collagen Type III; Collagen Type III (Human)
Species Reactivity	Human
Assay Type	Quantitative Competitive
Samples	Serum, plasma, cell culture supernatants, body fluid and tissue homogenate
Sensitivity	1.0 ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of COL3. No significant cross-reactivity or interference between COL3 and analogues was observed. NOTE: Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between COL3 and all the analogues, therefore, cross reaction may still exist in some cases.
Preparation and Storage	Store all reagents at 2-8 degree C
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for Col III elisa kit	Human ELISA Kit
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for Col III elisa kit	Principle of the Assay: COL3 ELISA kit applies the competitive enzyme immunoassay technique utilizing a polyclonal anti-COL3 antibody and an COL3-HRP conjugate. The assay sample and buffer are incubated together with COL3-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the COL3 concentration since COL3 from samples and COL3-HRP conjugate compete for the anti-COL3 antibody binding site. Since the number of sites is limited, as more sites are occupied by COL3 from the sample, fewer sites are left to bind COL3-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The COL3 concentration in each sample is interpolated from this standard curve. Intended Uses: This COL3 ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human COL3. This ELISA kit for research use only, not for therapeutic or test applications!
Other Notes	Small volumes of Col III elisa kit 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 Col III purchase	MBS730758 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Collagen Type III (Col III) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing Col III. The ELISA analytical biochemical technique of the MBS730758 kit is based on Col III antibody-Col III antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Col III antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Col III. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of Col III elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	494319369
NCBI Accession #	AGL34959
NCBI Official Full Name	collagen type III alpha 1
NCBI Summary for Col III	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 Col III	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, signal peptide; Cell adhesion; Motility/polarity/chemotaxis; Secreted 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; metal ion binding; platelet-derived growth factor binding; extracellular matrix structural constituent; SMAD binding Biological Process: skin development; integrin-mediated signaling pathway; platelet activation; axon guidance; receptor-mediated endocytosis; 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; collagen catabolic process; extracellular matrix disassembly; response to radiation; gut development; response to mechanical stimulus; response to cytokine stimulus; transforming growth factor beta receptor signaling pathway; fibril organization and biogenesis; peptide cross-linking; cerebral cortex development; skeletal development; aging Disease: Ehlers-danlos Syndrome, Type Iv, Autosomal Dominant; Ehlers-danlos Syndrome, Type Iii
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