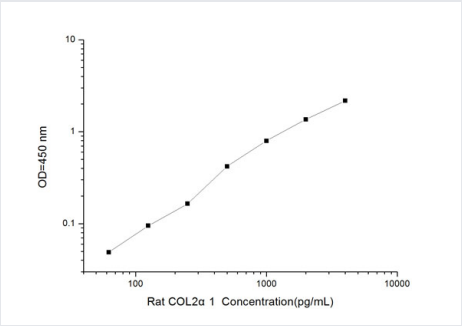
Col2alpha1 ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	COL2alpha1, ELISA Kit
Full Product Name	Rat COL2alpha1 (Collagen Type II Alpha 1) ELISA Kit
Product Gene Name	COL2alpha1 elisa kit
Species Reactivity	Rat
Assay Type	Sandwich
Samples	Serum, Plasma, Biological Fluids
Detection Range	62.5-4000pg/mL
Sensitivity	Min: 37.5pg/mL; Max: 4000pg/mL
Specificity	This kit recognizes natural and recombinant Rat COL2alpha1. No significant cross-reactivity or interference between Rat COL2alpha1 and analogues was observed.
Preparation and Storage	Store at 4 degree C.
Molecular Weight	134,570 Da
Intended Uses	This ELISA kit applies to the in vitro quantitative determination of Rat COL2alpha1 concentrations in serum, plasma and other biological fluids.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for COL2alpha1 elisa kit	**Principle of the assay:** This ELISA kit uses Sandwich-ELISA as the method. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to COL2alpha1. Standards or samples are added to the appropriate micro ELISA plate wells and combined with the specific antibody. Then a biotinylated detection antibody specific for COL2alpha1 and Avidin-Horseradish Peroxidase (HRP) conjugate is added to each micro plate well successively and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain COL2alpha1, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The OD value is proportional to the concentration of COL2alpha1. You can calculate the concentration of COL2alpha1 in the samples by comparing the OD of the samples to the standard curve.
Other Notes	Small volumes of COL2alpha1 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 COL2alpha1 purchase	MBS2515897 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the COL2alpha1, 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 COL2alpha1. The ELISA analytical biochemical technique of the MBS2515897 kit is based on COL2alpha1 antibody-COL2alpha1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect COL2alpha1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, COL2alpha1. 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 COL2alpha1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COL2alpha1. It may not necessarily be applicable to this product.

NCBI GI #	6978677
NCBI GeneID	25412
NCBI Accession #	NP_037061.1
UniProt Secondary Accession #	Q63123; Q63565; Q78DY3
UniProt Related Accession #	P05539
GenBank Nucleotide #	NM_012929.1
NCBI Official Full Name	collagen alpha-1(II) chain
NCBI Official Synonym Full Names	collagen, type II, alpha 1
NCBI Official Symbol	Col2a1
NCBI Official Synonym Symbols	CG2A1A; COLLII
UniProt Protein Name	Collagen alpha-1(II) chain
UniProt Synonym Protein Names	Alpha-1 type II collagenCleaved into the following 2 chains:Collagen alpha-1(II) chain; Chondrocalcin
UniProt Gene Name	Col2a1
UniProt Entry Name	CO2A1_RAT
NCBI Protein Information	collagen alpha-1(II) chain; collagen alpha-1(II) chain; Procollagen II alpha 1; alpha-1 type II collagen; collagen type II (Col2A1) gene, enhancer region; procollagen, type II, alpha 1
NCBI Summary for COL2alpha1	structural component of the cartilage extracellular matrix [RGD, Feb 2006]
UniProt Comments for COL2alpha1	Type II collagen is specific for cartilaginous tissues. It is essential for the normal embryonic development of the skeleton, for linear growth and for the ability of cartilage to resist compressive forces.
Research Articles on COL2alpha1	**1.** Rat collagen II citrullination decreased the adhesion of human synovial fibroblasts and rat mesenchymal stem cells by decreasing the binding of integrins alpha10beta1 and alpha11beta1 (but not alpha1beta1 and alpha2beta1)to Arg-containing motifs. It decreased MSC survival.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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