



Human Collagen alpha-1(II) chain (COL2A1) ELISA kit

Product Code	CSB-EL005739HU
Abbreviation	COL2A1
Target Name	collagen, type II, alpha 1
Uniprot No.	P02458
Alias	ANFH, AOM, COL11A3, MGC131516, SEDC, cartilage collagen chondrocalcin collagen II, alpha-1 polypeptide
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates, cell lysates
Detection Range	0.312 ng/mL-20 ng/mL
Sensitivity	0.078 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	COL2A1
Tag Info	quantitative
Protein Description	Sandwich
Description	This Human COL2A1 ELISA Kit was designed for the quantitative measurement of Human COL2A1 protein in serum, plasma, tissue homogenates, cell lysates. It is a Sandwich ELISA kit, its detection range is 0.312 ng/mL-20 ng/mL and the sensitivity is 0.078 ng/mL.

Target Details	This gene encodes the alpha-1 chain of type II collagen, a fibrillar collagen found in cartilage and the vitreous humor of the eye. Mutations in this gene are associated with achondrogenesis, chondrodysplasia, early onset familial osteoarthritis, SED congenita, Langer-Saldino achondrogenesis, Kniest dysplasia, Stickler syndrome type I, and spondyloepimetaphyseal dysplasia Strudwick type. In addition, defects in processing chondrocalcin, a calcium binding protein that is the C-propeptide of this collagen molecule, are also associated with chondrodysplasia. There are two transcripts identified for this gene.
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Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human COL2A1 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1	Average %	104
	Range %	100-107
1:2	Average %	85
	Range %	81-89
1:4	Average %	96
	Range %	93-99
1:8	Average %	88
	Range %	84-93

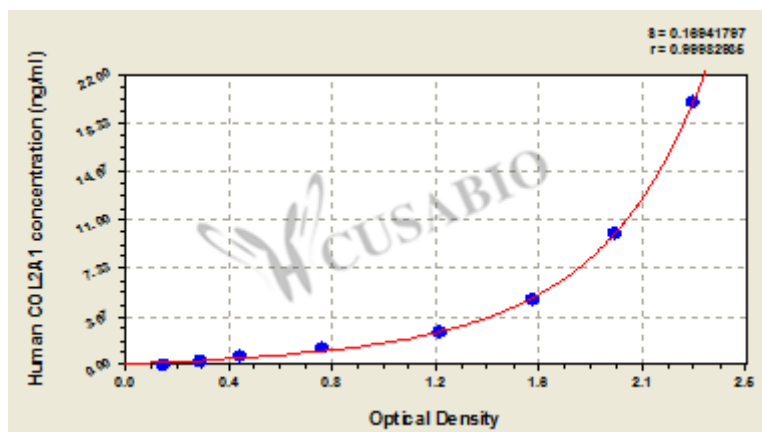
Recovery

The recovery of human COL2A1 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	100	95-105
EDTA plasma (n=4)	102	98-106

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
20	2.305	2.205	2.255	2.092
10	1.963	1.924	1.944	1.781
5	1.614	1.631	1.623	1.460
2.5	1.204	1.304	1.254	1.091
1.25	0.782	0.798	0.790	0.627
0.625	0.463	0.476	0.470	0.307
0.312	0.306	0.312	0.309	0.146
0	0.162	0.164	0.163	?

Msds

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