

Human Collagen, type I, Alpha 1 ELISA Kit | COL1A1 elisa kit

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CATALOG #
AAA247865

REACTIVITY
Human

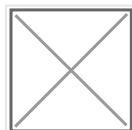
PRODUCT SYNONYMS

Collagen; type I; Alpha 1; Human Collagen; Alpha 1 ELISA Kit; COL1A1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Capture antibody and detection antibody respectively identify different epitopes of the antigen, which maximizes the specificity of the reaction. No cross-reaction exists between the homologous cytokines.
Assay Type	Sandwich
Intra-assay Precision	5.1-5.9
Inter-assay Precision	4.9-7.0

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for COL1A1 elisa kit

Background: Type I collagen is a structural protein that is abundant in skin, bone and other tissues. It is synthesized as a procollagen molecule which is shown as a 300 nm triple helical domain flanked by globular N- and C-terminal propeptides. When the non-helical propeptides are removed by procollagen N-terminal and C-terminal proteinase activities, the mature triple helices are able to self-assemble into collagen fibrils that enhance tensile strength to tissues. Type I collagen is a heterotrimer in structure, which consists of two alpha 1 chains and one alpha 2 chain. As a heterotrimer in structure, although Type I collagen is also described as homotrimers consisting of three identical alpha 1 chains. Mutations in this gene are associated with osteogenesis imperfecta types I-IV, Ehlers-Danlos syndrome type VIIA, Ehlers-Danlos syndrome Classical type, Caffey Disease and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor. Two transcripts, resulting from the use of alternate polyadenylation signals, have been identified for this gene.

Principle of the Assay: This ELISA kit is applied to the solid phase sandwich Enzyme Linked Immunosorbent Assay. The microtiter plate has been pre-coated with capture antibody. The antigen to be measured and the biotin-conjugated detection antibody are then added to the microtiter plate wells sequentially to form a capture antibody-antigen-detection antibody complex. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells, and then a TMB substrate solution is added to the wells to incubate. TMB substrate solution turns blue after the oxidation of HRP, and finally turns to yellow immediately after adding the stop solution. Color of TMB substrate positively correlated with total COL1A1 bound in the initial steps. The color is measured by spectrophotometrically with wavelength of 450nm. The concentration of COL1A1 in samples is then determined by comparing the O.D. of the samples to the standard curve.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/col1a1-human-elisa-kits/collagen-type-i-alpha-1/247865>