

Datasheet for ABIN5653130 **COL4A1 ELISA Kit**



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Overview

Quantity: 96 tests

Target: COL4A1

Reactivity: Rat

Method Type: Sandwich ELISA

Detection Range: 3.12 ng/mL - 200 ng/mL

Minimum Detection Limit: 3.12 ng/mL

Application: ELISA

Product Details

Sample Type: Plasma, Serum, Tissue Homogenate

Analytical Method: Quantitative

Detection Method: Colorimetric

Specificity: This assay has high sensitivity and excellent specificity for detection of Collagen Type IV Alpha 1 (COL4a1). No significant cross-reactivity or interference between Collagen Type IV Alpha 1 (COL4a1) and analogues was observed.

Sensitivity: 1.21 ng/mL

Target Details

Target: COL4A1

Alternative Name: Collagen Type IV Alpha 1 ([COL4A1 Products](#))

Target Details

Background:	Gene Name: Collagen Type IV Alpha 1 Gene Aliases: COL4-A1, Arresten, Collagen Alpha-1(IV)chain
Pathways:	Skeletal Muscle Fiber Development , Growth Factor Binding

Application Details

Comment:	The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5 % within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.
Assay Time:	3 h
Plate:	Pre-coated
Protocol:	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Collagen Type IV Alpha 1 (COL4a1). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Collagen Type IV Alpha 1 (COL4a1). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Collagen Type IV Alpha 1 (COL4a1), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Collagen Type IV Alpha 1 (COL4a1) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Assay Precision:	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Collagen Type IV Alpha 1 (COL4a1) were tested 20 times on one plate, respectively Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Collagen Type IV Alpha 1 (COL4a1) were tested on 3 different plates, 8 replicates in each plate. $CV(\%) = SD/mean \times 100$ Intra-Assay: CV<10% Inter-Assay: CV<12%
Restrictions:	For Research Use only

Handling

Handling Advice:	The Stop Solution is acidic. Do not allow to contact skin or eyes. Calibrators, controls and specimen samples should be assayed in duplicate. Once the procedure has been started, all steps should be completed without interruption.
Storage:	4 °C,-20 °C
Storage Comment:	-20°C. Bring all reagents to room temperature before beginning test. The kit may be stored at 4°C for immediate use within two days upon arrival. Reseal any unused strips with desiccant pack. Minimize freeze/thaw cycles.
Expiry Date:	4-8 months