

Datasheet for ABIN5564692
Collagen Type I ELISA Kit



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1 Image

Overview

Quantity:	96 tests
Target:	Collagen Type I (COL1)
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6 pg/mL - 1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Sample Type:	Plasma, Serum, Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	<p>This assay has high sensitivity and excellent specificity for detection of High Sensitive Collagen Type I (COL1).</p> <p>No significant cross-reactivity or interference between High Sensitive Collagen Type I (COL1) and analogues was observed.</p>
Sensitivity:	5.5 pg/mL
Grade:	High Sensitivity
Components:	<ul style="list-style-type: none">• Pre-coated, ready to use 96-well strip plate• Plate sealer for 96 wells• Standard Diluent

Product Details

- Assay Diluent A
- Assay Diluent B
- Stop Solution
- Standard
- Detection Reagent A
- Detection Reagent B
- TMB Substrate
- Wash Buffer (30 x concentrate)
- Instruction manual

- Material not included:
- Microplate reader with 450 nm filter.
 - Precision single or multi-channel pipettes and disposable tips.
 - Eppendorf Tubes for diluting samples.
 - Deionized or distilled water.
 - Absorbent paper for blotting the microtiter plate.
 - Container for Wash Solution

Target Details

- Target: Collagen Type I (COL1)
- Alternative Name: Collagen Type I (COL1) ([COL1 Products](#))

Application Details

- 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 High Sensitive Collagen Type I (COL1). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to High Sensitive Collagen Type I (COL1). 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 High Sensitive Collagen Type I (COL1), 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 High Sensitive Collagen Type I (COL1) in the samples is then determined by comparing the O.D. of the samples to the standard curve.

Application Details

Assay Procedure:	<ol style="list-style-type: none">1. Prepare all reagents, samples and standards,2. Add 100µL standard or sample to each well. Incubate 2 hours at 37 °C,3. Aspirate and add 100µL prepared Detection Reagent A. Incubate 1 hour at 37 °C,4. Aspirate and wash 3 times,5. Add 100µL prepared Detection Reagent B. Incubate 30 minutes at 37 °C,6. Aspirate and wash 5 times,7. Add 90µL Substrate Solution. Incubate 10-20 minutes at 37 °C,8. Add 50µL Stop Solution. Read at 450nm immediately.
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Assay Precision:	<p>Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level High Sensitive Collagen Type I (COL1) were tested 20 times on one plate, respectively.</p> <p>Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level High Sensitive Collagen Type I (COL1) were tested on 3 different plates, 8 replicates in each plate.</p> <p>$CV(\%) = SD/mean \times 100$</p> <p>Intra-Assay: CV<10%</p> <p>Inter-Assay: CV<12%</p>
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Restrictions:	For Research Use only
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Handling

Precaution of Use:	The Stop Solution suggested for use with this kit is an acid solution. Wear eye, hand, face, and clothing protection when using this material.
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Handling Advice:	<p>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.</p> <p>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.</p>
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Storage:	4 °C
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Storage Comment:	<ul style="list-style-type: none">• For unopened kit: All the reagents should be kept according to the labels on vials. The Standard, Detection Reagent A, Detection Reagent B and the 96-well strip plate should be stored at -20°C upon receipt while the others should be at 4°C.• For opened kit: When the kit is opened, the remaining reagents still need to be stored according to the above storage condition. Besides, please return the unused wells to the foil pouch containing the desiccant pack, and reseal along entire edge of zip-seal. <p>Note: It is highly recommended to use the remaining reagents within 1 month provided this is</p>
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within the expiration date of the kit.

- For ELISA kit, 1 day storage at 37°C can be considered as 2 months at 4°C, which means 3 days at 37°C equaling 6 months at 4°C.

Expiry Date: 6 months

Images

ELISA

Image 1.

