

## ARG82320 Hydroxyproline (Total Collagen) Assay Kit

Package: 96 wells  
Store at: 4°C

### Component

Cat. No.	Component Name	Package	Temp
ARG82320-001	96-well plate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82320-002	Collagen standard	1 vial	4°C
ARG82320-003	Assay buffer	1 vial	4°C
ARG82320-004	Detection reagent A	2 vials	4°C
ARG82320-005	Detection reagent B	1 vial	4°C
ARG82320-006	Special screw-capped tubes	100 ea	Room temperature
ARG82320-007	Plate sealer	2 strips	Room temperature

### Summary

Product Description	ARG82320 Hydroxyproline (Total Collagen) Assay Kit is a detection kit for the quantification of Hydroxyproline in tissue and cell extracts which can be used as a direct measure of the amount of collagen present.
Tested Reactivity	Hu, Ms, Rat, Mamm
Tested Application	FuncSt
Specificity	The kit is based on the detection of hydroxyproline. Hydroxyproline is a non-proteinogenic amino acid, which in mammals occurs in elastin and collagen. Its presence is mainly limited to the triple helix of collagen, where its presence increases the triple helix stability. Hydroxyproline is formed posttranslationally from specific proline residues by action of the enzyme prolylhydroxylase. Hydroxyproline in tissue hydrolysates can be used as a direct measure of the amount of collagen present.
Target Name	Hydroxyproline (Total Collagen)
Conjugation Note	Read at 570 nm.
Sensitivity	2.5 µg/ml
Sample Type	Tissue and cell extracts.
Standard Range	6.25 - 300 µg/ml
Sample Volume	Tissue: 100 µl Cell extracts: 50 µl
Alternate Names	OI1; OI2; OI3; OI4; EDSC; Collagen alpha-1(I) chain; Alpha-1 type I collagen

### Application Instructions

Assay Time	~ 1.5 hours
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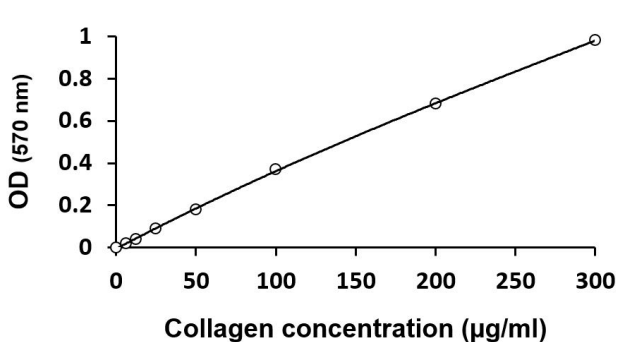
Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	COL1A1
Gene Full Name	collagen, type I, alpha 1
Background	This gene encodes the pro-alpha1 chains of type I collagen whose triple helix comprises two alpha1 chains and one alpha2 chain. Type I is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. 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. [provided by R. Dalglish, Feb 2008]
Function	Type I collagen is a member of group I collagen (fibrillar forming collagen). [UniProt]
PTM	<p>Proline residues at the third position of the tripeptide repeating unit (G-X-P) are hydroxylated in some or all of the chains. Proline residues at the second position of the tripeptide repeating unit (G-P-X) are hydroxylated in some of the chains.</p> <p>O-linked glycan consists of a Glc-Gal disaccharide bound to the oxygen atom of a post-translationally added hydroxyl group. [UniProt]</p>
Cellular Localization	Secreted, extracellular space, extracellular matrix. [UniProt]

Images



ARG82320 Hydroxyproline (Total Collagen) Assay Kit standard curve image

ARG82320 Hydroxyproline (Total Collagen) Assay Kit results of a typical standard run with optical density reading at 570 nm.