

# Collagen Products

## Human collagen type 1 ELISA kit

### Background

Type 1 collagen is the most abundant protein in the connective tissues, especially in tendon, skin and bone. This kit is designed to quantify collagen in various sources such as cell media, ECM (Extra Cellular Matrix) of culture cell and tissue because the kit detects atelo-collagen which is prepared by pepsin digestion.

### Features

- »Short assay time (2 hours 15 minutes).
- »Collagen pre-coated microtiter-plate.
- »Simultaneous assay of many samples (Assay maximum is 40 samples per 1 kit in duplicate).
- »No need of special machines and equipments because of non-isotope assay.
- »Partitional use because of split type (8 wells/strip).

### Principle (Competitive EIA)

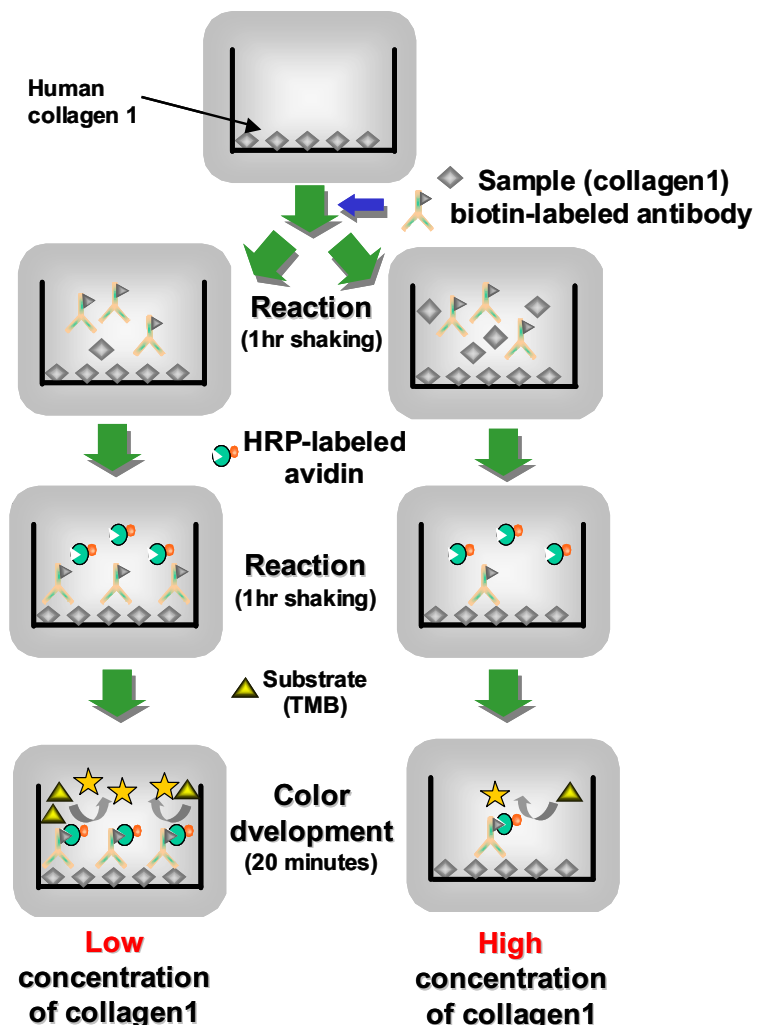
This assay is a competitive EIA in which polyclonal antibody to human type 1 atelo-collagen is used.

Mixture of sample contained atelo-collagen and biotinylated anti-atelo-collagen antibody is added to a well of microtiter-plate on which purified atelo-collagen is immobilized.

After washing, add peroxidase labeled avidin. The avidin reacts with the biotinylated antibody on the microtiter-plate.

After washing, add TMB (3, 3', 5, 5'-tetramethylbenzidine) which is a substrate of peroxidase. After reaction, measure the absorbance of the color density of the reaction mixture at 450 nm.

In proportion to increase the collagen concentration of samples, the color density decreases since the amount of biotinylated antibody and peroxidase labeled avidin decreases.



Description	Cat No.	Size	Reactivity	Assay Range	Sample
Type 1 Collagen, ELISA	ACB-EC1-E105-EX	1 set	HU	0.02~40 $\mu$ g/ml	Culture cell, tissue

[http://www.cosmobio.co.jp/export\\_e/products/elisa/products\\_ACB\\_20060222.asp](http://www.cosmobio.co.jp/export_e/products/elisa/products_ACB_20060222.asp)

### [Related products]

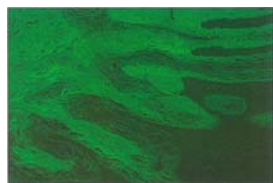
Description	Cat No.	Size	Reactivity
Collagen type 1 (Atelo-collagen)	ACB-EC1-R105-EX	0.1 ml	HU
Collagen type 1 (Atelo-collagen)	ACB-EC1-R205-EX	0.5 ml	HU

[http://www.cosmobio.co.jp/export\\_e/products/proteins/products\\_ACB\\_20080115.asp](http://www.cosmobio.co.jp/export_e/products/proteins/products_ACB_20080115.asp)

# Collagen Antibodies

## Cell Matrix Protein Antibody

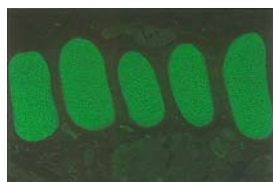
### Anti Collagen 1



Anti human and bovine, type I Collagen Polyclonal antibody [Cat# **LSL-LB1190**]  
FITC-Immunofluorescent staining of Human gum (4% formalin).

Description	Cat No.	Size	Source	Host	Cross React	Non react
Anti Collagen 1	LSL-LB1102	100 $\mu$ l	Rat	Rabbit	HU/MS/RAT/BOV/POR/GP/Mink	ELISA/IHC(f,p)
Anti Collagen 1	LSL-LB1190	100 $\mu$ l	Human/ Bovine	Rabbit	HU/BOV/POR/MKY/GP	ELISA/IHC(f,p)
Anti Collagen 1	LSL-LB1196	100 $\mu$ l	Porcine	Rabbit	HU/BOV/POR/CAN	ELISA/IHC(f,p)
Anti Collagen 1	LSL-LB1197	100 $\mu$ l	Bovine	Rabbit	HU/BOV/POR/SHP/GP	ELISA/IHC(f,p)

### Anti Collagen 2



Anti bovine, type II Collagen Polyclonal antibody [Cat# **LSL-LB1297**]  
FITC-Immunofluorescent staining of  
Rat tracheal cartilages and perifocal tissue (4% formalin).

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 2	LSL-LB1297	100 $\mu$ l	Bovine	Rabbit	HU/MS/RAT/BOV/GP	ELISA/IHC(f,p)

### Anti Collagen 3



Anti human bovine, type III Collagen Polyclonal antibody [Cat# **LSL-LB1300**]  
FITC-Immunofluorescent staining of Human gum (4% formalin).

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 3	LSL-LB1300	100 $\mu$ l	Human	Rabbit	HU/BOV/POR/Mink	ELISA/IHC(f,p)
Anti Collagen 3	LSL-LB1387	100 $\mu$ l	Bovine	Rabbit	HU/MS/RAT/BOV/GP	ELISA/IHC(f,p)
Anti Collagen 3	LSL-LB1393	100 $\mu$ l	Mouse	Rabbit	HU/MS/RAT/BOV/POR	ELISA/IHC(f,p)

### Anti Collagen 4

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 4	LSL-LB1403	100 $\mu$ l	Mouse	Rabbit	HU/MS/RAT/GP/Mink	ELISA/IHC(f,p)
Anti Collagen 4	LSL-LB1407	100 $\mu$ l	Bovine	Rabbit	HU/MS/RAT/BOV/POR/GT/GP/Mink	ELISA/IHC(f,p)
Anti Collagen 4	LSL-LB0445	100 $\mu$ l	-	Rabbit	HU/MS/RAT/MKY/BOV	ELISA/IHC(f,p)
Anti Collagen 4	DFK-F-59	1ml	Human	Mouse	HU	EIA/IHC(f,p)/WB

### Anti Collagen 5

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 5	LSL-LB1597	100 $\mu$ l	Bovine	Rabbit	HU/BOV/POR/GT/GP	ELISA/IHC(f,p)
Anti Collagen 5	LSL-LB1503	100 $\mu$ l	Mouse	Rabbit	HU/MS/RAT/BOV	ELISA/IHC(f,p)
Anti Collagen 5	LSL-LB1581	100 $\mu$ l	Human	Rabbit	HU	ELISA/IHC(f,p)

## Anti Collagen 6

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 6	LSL-LB1697	100 $\mu$ l	Bovine	Rabbit	HU/MS/RAT/BOV/GP	ELISA/IHC(f,p)

## Anti Collagen 7

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 7	LSL-LB0771	100 $\mu$ l	Human	Rabbit	HU/MS/RAT/BOV	ELISA/IHC(f,p)

## Anti Collagen 8

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 8	LSL-LB0883	100 $\mu$ l	Mouse	Rabbit	HU/MS/RAT/BOV	ELISA/IHC(f,p)

## Anti Collagen 9

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 9	LSL-LB0903	100 $\mu$ l	Mouse	Rabbit	HU/MS/RAT/BOV	ELISA/IHC(f,p)

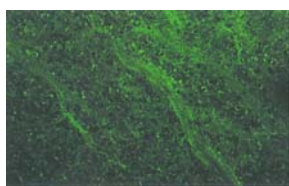
## Anti Collagen 10

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 10	LSL-LB0092	100 $\mu$ l	Rat	Rabbit	HU/MS/RAT/CHK	ELISA/IHC(f,p)

## Anti Collagen 11

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 11	LSL-LB1110	100 $\mu$ l	Bovine	Rabbit	BOV/HU/MS/RAT	ELISA/IHC(f,p)

## Anti Collagen 12



Anti (MAP) Type XII Collagen Polyclonal antibody [Cat# : **LSL-LB1200**]  
FITC-Immunofluorescent staining of rat spinal cord frozen section (3% formalin)

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 12	LSL-LB1200	100 $\mu$ l	-	Rabbit	HU/MS/RAT/CHK	ELISA/IHC(f,p)

## Anti Collagen 14

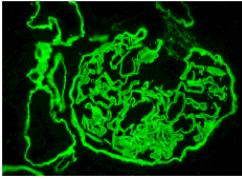
Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 14	LSL-LB1400	100 $\mu$ l	-	Rabbit	HU/MS/RAT/BOV	ELISA/IHC(f,p)

### References:

- 1) Lee et al (2000). Immunohistological study of the localization of collagen types I-XI in bovine term placenta, Anim. Sci. J. 5, 501-508
- 2) Kubo et al (2000). Organization of extracellular matrix components during differentiation of adipocytes in long-term culture, In Vitro Cell. Dev. Biol. Animal-36, 38-44

# Collagen Antibodies

## Anti Human Collagen IV $\alpha 5$ Chain monoclonal antibody



**Human cryostat section stained with monoclonal antibody (SGE-C452) H52.**

Glomerular basement membrane (BM), part of tubular BM, and Bowman's capsular BM are stained.

### Reference:

1) Sado et al. (1995) Establishment by the rat lymph node method of epitope-defined monoclonal antibodies recognizing the six different  $\alpha$  chains of human type IV collagen. *Histochem. Cell Biol.* 104: 267-275

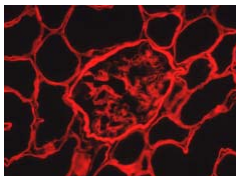
Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 4 Alpha5	SGE-C452	500 $\mu$ l	Human	Rat	HU/RAT/BOV/RAB/CAN/GP	WB/IF

## Fluorochrome-conjugated monoclonal antibody for Alport's syndrome

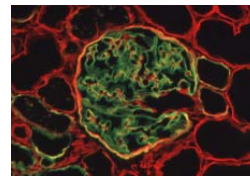
**FITC-Anti Human Collagen IV  $\alpha 5$  (IV) chain, (Mono)**  
**+ Texas Red-Anti Human Collagen IV  $\alpha 2$  (IV) Chain, (Mono)**

### Background

This product can be used for staining of human renal and skin biopsy sections very easily and rapidly because two monoclonal antibodies are conjugated with two different fluorochromes. FITC-conjugated-anti  $\alpha 5$ (IV) demonstrates presence or absence of the  $\alpha 5$ (IV) chain, and Texas Red –anti  $\alpha 2$ (IV) reveals the renal basement membrane structure. Alport's syndrome, an inherited disease, shows absence or reduction of the  $\alpha 5$ (IV) chain in the glomerular, tubular and Bowman's capsular basement membranes. Normal human kidney has  $\alpha 1$ (IV) to  $\alpha 6$ (IV) chains in the renal basement membranes.



**Double exposure of normal human kidney section stained with the product.**



**Double exposure of Alport human kidney section stained with the product.**

FITC fluorescence ( $\alpha 5$  chain) is observed in the GBM, part of the TBM and Bowman's capsular BM. BMs were two fluorochromes are present look orange to yellow.

Because no FITC fluorescence ( $\alpha 5$  chain) is observed in the kidney of the patient with X-linked Alport's syndrome, only Texas Red fluorescence ( $\alpha 2$  chain) is confirmed.

### References:

- 1) Kagawa M et al. (1997) Epitope-defined monoclonal antibodies against type-IV collagen for diagnosis of Alport's syndrome. *Nephrol. Dial. Transplant.* 12: 1238-1241.
- 2) Yoshioka K et al. (1994) Type IV collagen  $\alpha 5$  chain: Normal distribution and abnormalities in X-linked Alport syndrome revealed by monoclonal antibody. *Am. J. Pathol.* 144: 986-996.
- 3) Ninomiya Y et al. (1995) Differential expression of two basement membrane collagen genes, COL4A6 and COL4A5, demonstrated by immunofluorescence staining using peptide-specific monoclonal antibodies. *J. Cell Biol.* 130: 1219-1229.
- 4) Naito I et al. (1996) Relationship between COL4A5 gene mutation and distribution of type IV collagen in male X-linked Alport syndrome. *Kidney Int.* 50: 304-311.

Description	Cat No.	Size	Source	Host	Cross React	Application
Anti Collagen 4	SGE-CFT45325	1 ml	Human	Rat	HU	FITC/TXRD IF

Distributor



COSMO BIO CO., LTD.  
Inspiration for Life Science

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FAX : +81-3-5632-9618



## Collagen Products Price List

	Cat#	Description	Quantity	Price
Human Collagen Type 1 ELISA kit	ACB-EC1-E105-EX	Type 1 Collagen, ELISA	1set	¥80000 \$762 €616
	ACB-EC1-R105-EX	Collagen type 1 (Atelo-collagen)	0.1ml	¥20000 \$191 €154
	ACB-EC1-R205-EX	Collagen type 1 (Atelo-collagen)	0.5ml	¥50000 \$477 €385
Anti Collagen 1	LSL-LB1102	Anti Collagen 1	100ul	¥40000 \$381 €308
	LSL-LB1190	Anti Collagen 1	100ul	¥40000 \$381 €308
	LSL-LB1196	Anti Collagen 1	100ul	¥40000 \$381 €308
	LSL-LB1197	Anti Collagen 1	100ul	¥40000 \$381 €308
Anti Collagen 2	LSL-LB1297	Anti Collagen 2	100ul	¥40000 \$381 €308
Anti Collagen 3	LSL-LB1300	Anti Collagen 3	100ul	¥40000 \$381 €308
	LSL-LB1387	Anti Collagen 3	100ul	¥40000 \$381 €308
	LSL-LB1393	Anti Collagen 3	100ul	¥40000 \$381 €308
Anti Collagen 4	LSL-LB1403	Anti Collagen 4	100ul	¥40000 \$381 €308
	LSL-LB1407	Anti Collagen 4	100ul	¥40000 \$381 €308
	LSL-LB0445	Anti Collagen 4	100ul	¥40000 \$381 €308
	DFK-F-59	Anti Collagen 4	1ml	¥30000 \$286 €231
Anti Collagen 5	LSL-LB1597	Anti Collagen 5	100ul	¥40000 \$381 €308
	LSL-LB1503	Anti Collagen 5	100ul	¥40000 \$381 €308
	LSL-LB1581	Anti Collagen 5	100ul	¥45000 \$429 €347
Anti Collagen 6	LSL-LB1697	Anti Collagen 6	100ul	¥40000 \$381 €308
Anti Collagen 7	LSL-LB0771	Anti Collagen 7	100ul	¥50000 \$477 €385
Anti Collagen 8	LSL-LB0883	Anti Collagen 8	100ul	¥50000 \$477 €385
Anti Collagen 9	LSL-LB0903	Anti Collagen 9	100ul	¥50000 \$477 €385

<b>Anti Collagen 10</b>	LSL-LB0092	Anti Collagen 10	100ul	¥50000 \$477 €385
<b>Anti Collagen 11</b>	LSL-LB1110	Anti Collagen 11	100ul	¥50000 \$477 €385
<b>Anti Collagen 12</b>	LSL-LB1200	Anti Collagen 12	100ul	¥50000 \$477 €385
<b>Anti Collagen 14</b>	LSL-LB1400	Anti Collagen 12	100ul	¥50000 \$477 €385
<b>Anti Human Collagen IV <math>\alpha</math> 5 Chain monoclonal antibody</b>	SGE-C452	Anti Collagen 4 Alpha5	500ul	¥28000 \$267 €216
<b>Fluorochrome-conjugated monoclonal antibody for Alport's syndrome</b>	SGE-CFT45325	Anti Collagen 4	1ml	¥55000 \$524 €424



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