

# COL4A2 (T-15): sc-70246

## BACKGROUND

The extensive family of COL gene products (collagens) is composed of several chain types, including fibril-forming interstitial collagens (types I, II, III and V) and basement membrane collagens (type IV), each type containing multiple isoforms. Collagens are fibrous, extracellular matrix proteins with high tensile strength and are the major components of connective tissue, such as tendons and cartilage. All collagens contain a triple helix domain and frequently show lateral self-association in order to form complex connective tissues. Several collagens also play a role in cell adhesion, important for maintaining normal tissue architecture and function.

## REFERENCES

- Bateman, J.F., Lamande, S.R. and Ramshaw, J.A.M. 1996. Collagen superfamily. In Comper, W.D., ed., *Extracellular Matrix, Vol 2: Molecular Components and Interactions*. Amsterdam: Harwood Academic Publishers, 22-67.
- McCarthy, J.B., Vachhani, B. and Iida, J. 1996. Cell adhesion to collagenous matrices. *Biopolymers* 40: 371-381.
- Engel, J. 1997. Versatile collagens in invertebrates. *Science* 277: 1785-1786.
- Myers, L.K., Rosloniec, E.F., Cremer, M.A. and Kang, A.H. 1997. Collagen-induced arthritis, an animal model of autoimmunity. *Life Sci.* 61: 1861-1878.
- Staines, N.A., Harper, N. and Ward, F.J. 1997. Nasal tolerance to dominant and subdominant epitopes of collagen type II and protection against collagen-induced arthritis. *Biochem. Soc. Trans.* 25: 661-664.
- Cremer, M.A., Rosloniec, E.F. and Kang, A.H. 1998. The cartilage collagens: a review of their structure, organization and role in the pathogenesis of experimental arthritis in animals and in human rheumatic disease. *J. Mol. Med.* 76: 275-288.

## CHROMOSOMAL LOCATION

Genetic locus: COL4A2 (human) mapping to 13q34; Col4a2 (mouse) mapping to 8 A1.1.

## SOURCE

COL4A2 (T-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of COL4A2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70246 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

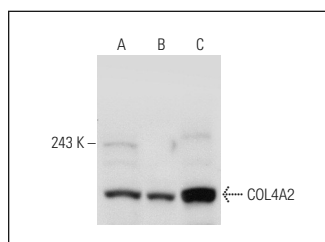
COL4A2 (T-15) is recommended for detection of COL4A2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for COL4A2 siRNA (h): sc-72954, COL4A2 siRNA (m): sc-72955, COL4A2 shRNA Plasmid (h): sc-72954-SH, COL4A2 shRNA Plasmid (m): sc-72955-SH, COL4A2 shRNA (h) Lentiviral Particles: sc-72954-V and COL4A2 shRNA (m) Lentiviral Particles: sc-72955-V.

Molecular Weight of COL4A2: 168 kDa.

Positive Controls: OV-90 whole cell lysate: sc-364191, Jurkat whole cell lysate: sc-2204 or MIA PaCa-2 cell lysate: sc-2285.

## DATA



COL4A2 (T-15): sc-70246. Western blot analysis of COL4A2 expression in MIA PaCa-2 (A), OV-90 (B) and Jurkat (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Doller, A., Gauer, S., Sobkowiak, E., Geiger, H., Pfeilschifter, J. and Eberhardt, W. 2009. Angiotensin II induces renal plasminogen activator inhibitor-1 and cyclooxygenase-2 expression post-transcriptionally via activation of the mRNA-stabilizing factor human-antigen R. *Am. J. Pathol.* 174: 1252-1263.
- Koo, B.H., Han, J.H., Yeom, Y.I. or Kim, D.S. 2010. Thrombin-dependent MMP-2 activity is regulated by heparan sulfate. *J. Biol. Chem.* 285: 41270-41279.
- Mallipattu, S.K., Liu, R., Zhong, Y., Chen, E.Y., D'Agati, V., Kaufman, L., Ma'ayan, A., Klotman, P.E., Chuang, P.Y. and He, J.C. 2013. Expression of HIV transgene aggravates kidney injury in diabetic mice. *Kidney Int.* 83: 626-634.
- Tarassishin, L., Lim, J., Weatherly, D.B., Angeletti, R.H. and Lee, S.C. 2014. Interleukin-1-induced changes in the glioblastoma secretome suggest its role in tumor progression. *J. Proteomics* 99: 152-168.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.