

COL1A2 (C-19): sc-8786

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

1. Bateman, J.F., et al. 1996. Collagen superfamily. In Comper, W.D., ed., Extracellular Matrix, Vol. 2: Molecular Components and Interactions. Amsterdam: Harwood Academic Publishers, 22-67.
2. McCarthy, J.B., et al. 1996. Cell adhesion to collagenous matrices. Biopolymers 40: 371-381.
3. Myers, L.K., et al. 1997. Collagen-induced arthritis, an animal model of autoimmunity. Life Sci. 61: 1861-1878.

CHROMOSOMAL LOCATION

Genetic locus: COL1A2 (human) mapping to 7q21.3.

SOURCE

COL1A2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Collagen $\alpha 2$ Type I of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-8786 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COL1A2 (C-19) is recommended for detection of Collagen $\alpha 2$ Type I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 COL1A2 siRNA (h): sc-72156, COL1A2 shRNA Plasmid (h): sc-72156-SH and COL1A2 shRNA (h) Lentiviral Particles: sc-72156-V.

Molecular Weight of COL1A2 precursor: 130-140 kDa.

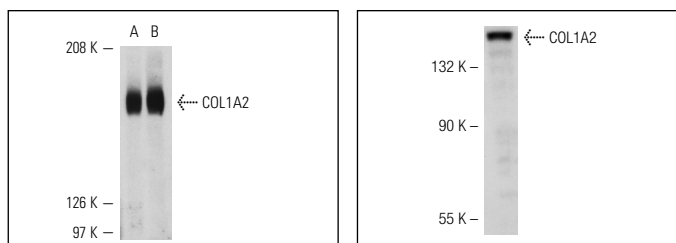
Molecular Weight of mature COL1A2: 70-90 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, WI-38 whole cell lysate: sc-364260 or FHs 173We cell lysate: sc-2417.

RESEARCH USE

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

DATA



COL1A2 (C-19): sc-8786. Western blot analysis of COL1A2 expression in FHs 173We (A) and WI 38 (B) whole cell lysates.

COL1A2 (C-19): sc-8786. Western blot analysis of COL1A2 expression in Hs68 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Rieske, P., et al. 2005. Human fibroblast-derived cell lines have characteristics of embryonic stem cells and cells of neuro-ectodermal origin. Differentiation 73: 474-483.
2. Adesida, A.B., et al. 2006. The matrix-forming phenotype of cultured human meniscus cells is enhanced after culture with fibroblast growth factor 2 and is further stimulated by hypoxia. Arthritis Res. Ther. 8: R61.
3. Mizoguchi, M., et al. 2007. Detection of reduced secretion of type III collagen by Western blotting: Its usefulness in screening for vascular Ehlers-Danlos syndrome. J. Chiba Med. Soc. 83: 223-230.
4. Mori, K., et al. 2009. CpG hypermethylation of collagen type I $\alpha 2$ contributes to proliferation and migration activity of human bladder cancer. Int. J. Oncol. 34: 1593-1602.
5. Toki, K., et al. 2010. CpG hypermethylation of cellular retinol-binding protein 1 contributes to cell proliferation and migration in bladder cancer. Int. J. Oncol. 37: 1379-1388.
6. Schaafsma, D., et al. 2011. Simvastatin inhibits TGF β 1-induced fibronectin in human airway fibroblasts. Respir. Res. 12: 113.
7. Borriello, A., et al. 2016. Iron overload enhances human mesenchymal stromal cell growth and hampers matrix calcification. Biochim. Biophys. Acta. E-published.

STORAGE

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



Try **COL1A2 (E-6): sc-393573** or **COL1A2 (H-9): sc-376350**, our highly recommended monoclonal alternatives to COL1A2 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **COL1A2 (E-6): sc-393573**.