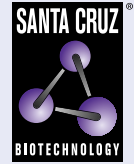


COL1A2 (H-9): sc-376350



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: COL1A2 (human) mapping to 7q21.3; Col1a2 (mouse) mapping to 6 A1.

SOURCE

COL1A2 (H-9) is a mouse monoclonal antibody raised against amino acids 1021-1090 mapping within an internal region of Collagen $\alpha 2$ Type I of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

COL1A2 (H-9) is available conjugated to agarose (sc-376350 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376350 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376350 PE), fluorescein (sc-376350 FITC), Alexa Fluor[®] 488 (sc-376350 AF488), Alexa Fluor[®] 546 (sc-376350 AF546), Alexa Fluor[®] 594 (sc-376350 AF594) or Alexa Fluor[®] 647 (sc-376350 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376350 AF680) or Alexa Fluor[®] 790 (sc-376350 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

COL1A2 (H-9) is recommended for detection of Collagen $\alpha 2$ Type I of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

COL1A2 (H-9) is also recommended for detection of Collagen $\alpha 2$ Type I in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for COL1A2 siRNA (h): sc-72156, COL1A2 siRNA (m): sc-43061, COL1A2 shRNA Plasmid (h): sc-72156-SH, COL1A2 shRNA Plasmid (m): sc-43061-SH, COL1A2 shRNA (h) Lentiviral Particles: sc-72156-V and COL1A2 shRNA (m) Lentiviral Particles: sc-43061-V.

Molecular Weight of COL1A2 precursor: 130-140 kDa.

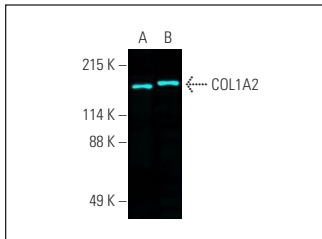
Molecular Weight of mature COL1A2: 70-90 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263, WI-38 whole cell lysate: sc-364260 or BJ whole cell lysate: sc-364359.

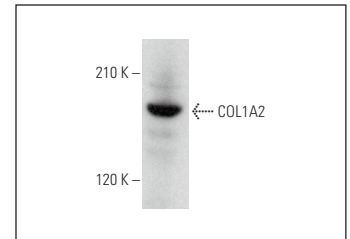
STORAGE

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

DATA



COL1A2 (H-9) Alexa Fluor[®] 647: sc-376350 AF647. Direct fluorescent western blot analysis of COL1A2 expression in CCD-1064Sk (A) and BJ (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214.



COL1A2 (H-9): sc-376350. Western blot analysis of COL1A2 expression in WI-38 whole cell lysate.

SELECT PRODUCT CITATIONS

- Frazier, T.P., et al. 2013. Impact of low oxygen on the secretome of human adipose-derived stromal/stem cell primary cultures. *Biochimie* 95: 2286-2296.
- Borriello, A., et al. 2016. Iron overload enhances human mesenchymal stromal cell growth and hampers matrix calcification. *Biochim. Biophys. Acta* 1860: 1211-1223.
- Tang, D., et al. 2018. Galectin-1 expression in activated pancreatic satellite cells promotes fibrosis in chronic pancreatitis/pancreatic cancer via the TGF- β 1/Smad pathway. *Oncol. Rep.* 39: 1347-1355.
- Han, K., et al. 2019. Cilostazol protects rats against alcohol-induced hepatic fibrosis via suppression of TGF- β 1/CTGF activation and the cAMP/Epac1 pathway. *Exp. Ther. Med.* 17: 2381-2388.
- Shi, C.K., et al. 2019. Therapeutic effect of interleukin-10 in keloid fibroblasts by suppression of TGF- β /Smad pathway. *Eur. Rev. Med. Pharmacol. Sci.* 23: 9085-9092.
- Liu, P., et al. 2020. Spirulina protein promotes skin wound repair in a mouse model of full-thickness dermal excisional wound. *Int. J. Mol. Med.* 46: 351-359.
- Liu, M., et al. 2022. Combination of *Sophora flavescens* alkaloids and *Panax quinquefolium* saponins modulates different stages of experimental autoimmune myocarditis via the NF κ B and TGF- β 1 pathways. *Exp. Ther. Med.* 24: 570.
- Kumar, P., et al. 2024. Epigenetic mechanisms differentially regulate blood pressure and renal dysfunction in male and female Npr1 haplotype mice. *FASEB J.* 38: e23858.

RESEARCH USE

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

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA