

## COL3A1 (B-10): sc-271249



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: COL3A1 (human) mapping to 2q32.2; Col3a1 (mouse) mapping to 1 C1.1.

## SOURCE

COL3A1 (B-10) is a mouse monoclonal antibody raised against amino acids 901-1200 mapping near the C-terminus of Collagen  $\alpha$ 1 Type III of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

COL3A1 (B-10) is available conjugated to agarose (sc-271249 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271249 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271249 PE), fluorescein (sc-271249 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271249 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271249 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271249 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271249 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271249 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271249 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

COL3A1 (B-10) is recommended for detection of Collagen  $\alpha$ 1 Type III of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 COL3A1 siRNA (h): sc-43062, COL3A1 siRNA (m): sc-43063, COL3A1 shRNA Plasmid (h): sc-43062-SH, COL3A1 shRNA Plasmid (m): sc-43063-SH, COL3A1 shRNA (h) Lentiviral Particles: sc-43062-V and COL3A1 shRNA (m) Lentiviral Particles: sc-43063-V.

Molecular Weight of COL3A1 isoforms: 110/140 kDa.

Positive Controls: COL3A1 (h): 293T Lysate: sc-114750, CCD-1064Sk cell lysate: sc-2263 or HISM whole cell lysate: sc-2229.

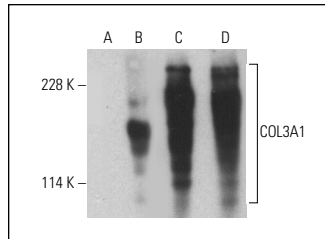
## STORAGE

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

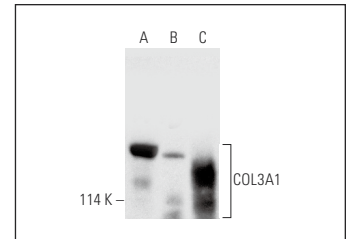
## RESEARCH USE

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

## DATA



COL3A1 (B-10) HRP: sc-271249 HRP. Direct western blot analysis of COL3A1 expression in non-transfected 293T: sc-114750 (A), human COL3A1 transfected 293T: sc-114750 (B), A-10 (C) and HISM (D) whole cell lysates.



COL3A1 (B-10): sc-271249. Western blot analysis of COL3A1 expression in HISM (A) and CCD-1064Sk (B) whole cell lysates and human bone marrow tissue extract (C).

## SELECT PRODUCT CITATIONS

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- Upadhyay, A., et al. 2014. *Ixora coccinea* enhances cutaneous wound healing by upregulating the expression of collagen and basic fibroblast growth factor. *ISRN Pharmacol.* 2014: 751824.
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- Chao, L., et al. 2019. MiR-96 promotes collagen deposition in keloids by targeting Smad7. *Exp. Ther. Med.* 17: 773-781.
- da Costa, C.S., et al. 2019. The tributyltin leads to obesogenic mammary gland abnormalities in adult female rats. *Toxicol. Lett.* 307: 59-71.
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- Lambers, C., et al. 2019. Combined activation of guanylate cyclase and cyclic AMP in lung fibroblasts as a novel therapeutic concept for lung fibrosis. *Biomed Res. Int.* 2019: 1345402.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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