SANTA CRUZ BIOTECHNOLOGY, INC.

COL1A1 (H-7): sc-518272

SANTA CRUZ BIOTECHNOLOGY

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.

REFERENCES

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4. 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.
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CHROMOSOMAL LOCATION

Genetic locus: COL1A1 (human) mapping to 17q21.33.

SOURCE

COL1A1 (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1194-1219 of COL1A1 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

COL1A1 (H-7) is recommended for detection of COL1A1 of human origin by Western Blotting (starting dilution 1:100, 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 COL1A1 siRNA (h): sc-44041, COL1A1 shRNA Plasmid (h): sc-44041-SH and COL1A1 shRNA (h) Lentiviral Particles: sc-44041-V.

Molecular Weight of COL1A1 precursor: 140-210 kDa.

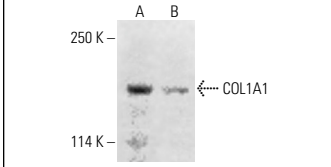
Molecular Weight of mature COL1A1: 70-90 kDa.

Positive Controls: HEK293T whole cell lysate: sc-45137 or SK-N-SH cell lysate: sc-2410.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



COL1A1 (H-7): sc-518272. Western blot analysis of COL1A1 expression in HEK293T (**A**) and SK-N-SH (**B**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.