

COL13A1 (N-14): sc-167514

BACKGROUND

The collagen family is composed of at least 13 chain types, including vascular interstitial collagens and basement membrane collagens, 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. COL13A1 (collagen α -1(XIII) chain), also designated COLXIII A1, is a 717 amino acid single-pass type II membrane protein that exists as 9 alternatively spliced isoforms and is thought to play a role in endochondral ossification of bone. COL13A1 may assist in lung morphogenesis and forming connections between muscle fiber and basement membrane.

REFERENCES

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- Cremer, M.A., et al. 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: COL13A1 (human) mapping to 10q22.1.

SOURCE

COL13A1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Collagen α 1 Type XIII of human origin.

STORAGE

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

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-167514 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COL13A1 (N-14) is recommended for detection of Collagen α 1 Type XIII 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); non cross-reactive with other Collagen α 1 family members.

Suitable for use as control antibody for COL13A1 siRNA (h): sc-90350, COL13A1 shRNA Plasmid (h): sc-90350-SH and COL13A1 shRNA (h) Lentiviral Particles: sc-90350-V.

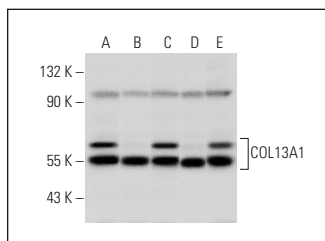
Molecular Weight of COL13A1: 70 kDa.

Positive Controls: NCI-H292 whole cell lysate: sc-364179, HUV-EC-C whole cell lysate: sc-364180 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



COL13A1 (N-14): sc-167514. Western blot analysis of COL13A1 expression in NCI-H292 (A), HUV-EC-C (B), HeLa (C), JAR (D) and Y79 (E) whole cell lysates.

RESEARCH USE

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