

# COL14A1 (E-13): sc-87048

## 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. COL14A1 (collagen  $\alpha$ -1(XIV) chain), also known as UND (undulin), is a 1,796 amino acid secreted protein that belongs to the fibril-associated collagens with interrupted helices (FACIT) family. Existing as three alternatively spliced isoforms, COL14A1 assists in integration of collagen bundles and localizes to extracellular matrix.

## CHROMOSOMAL LOCATION

Genetic locus: COL14A1 (human) mapping to 8q24.12; Col14a1 (mouse) mapping to 15 D1.

## SOURCE

COL14A1 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Collagen Type XIV of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-87048 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

COL14A1 (E-13) is recommended for detection of Collagen Type XIV of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

COL14A1 (E-13) is also recommended for detection of Collagen Type XIV in additional species, including equine, canine and porcine.

Suitable for use as control antibody for COL14A1 siRNA (h): sc-77734, COL14A1 siRNA (m): sc-142461, COL14A1 shRNA Plasmid (h): sc-77734-SH, COL14A1 shRNA Plasmid (m): sc-142461-SH, COL14A1 shRNA (h) Lentiviral Particles: sc-77734-V and COL14A1 shRNA (m) Lentiviral Particles: sc-142461-V.

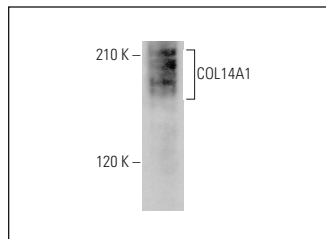
Molecular Weight of COL14A1: 194 kDa.

Positive Controls: human cerebellum tissue extract.

## 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



COL14A1 (E-13): sc-87048. Western blot analysis of COL14A1 expression in human cerebellum tissue extract.

## RESEARCH USE

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

## PROTOCOLS

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

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Try **COL14A1 (1C8): sc-517033**, our highly recommended monoclonal alternative to COL14A1 (E-13).