**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: COL1A1 (human) mapping to 17q21.33; Col1a1 (mouse) mapping to 11 D.

**SOURCE**

COL1A1 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of the mature chain of Collagen $\alpha_1$ Type I of human origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

COL1A1 (D-13) is recommended for detection of Collagen $\alpha_1$ Type I of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [starting dilution 1:50, dilution range 1:50-1:500], 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).

COL1A1 (D-13) is also recommended for detection of Collagen $\alpha_1$ Type I in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for COL1A1 siRNA (h): sc-44041, COL1A1 siRNA (m): sc-44044, COL1A1 shRNA Plasmid (h): sc-44041-SH, COL1A1 shRNA Plasmid (m): sc-44044-SH, COL1A1 shRNA (h) Lentiviral Particles: sc-44041-V and COL1A1 shRNA (m) Lentiviral Particles: sc-44044-V.

Molecular Weight of COL1A1 precursor: 140-210 kDa.

Molecular Weight of mature COL1A1: 70-90 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, CCD-106Sk cell lysate: sc-2263 or Hs 732.Sk/Mu whole cell lysate: sc-364362.

**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**

![Western blot analysis of COL1A1 expression in Hs68 and Hs 732.Sk/Mu whole cell lysates.](image1)

![Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.](image2)

![Immunoperoxidase staining of formalin fixed, paraffin-embedded human gastric carcinoma tissue showing cytoplasmic staining.](image3)

**SELECT PRODUCT CITATIONS**


