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


CHROMOSOMAL LOCATION

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

SOURCE

COL1A1 (3G3) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 1021-1108 of Collagen α1 Type I of human origin.

PRODUCT

Each vial contains 100 µg IgGκ kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

COL1A1 (3G3) is recommended for detection of Collagen α1 Type I of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 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 Control: Hs 732.Sk/Mu whole cell lysate.

STORAGE

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

DATA

COL1A1 (3G3): sc-293182. Western blot analysis of COL1A1 expression in Hs 732.Sk/Mu whole cell lysate.

COL1A1 (3G3): sc-293182. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS


RESEARCH USE

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