

# COL7A1 (LH7.2): sc-53226

## 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

1. Heagerty, A.H., et al. 1986. Identification of an epidermal basement membrane defect in recessive forms of dystrophic epidermolysis bullosa by LH 7:2 monoclonal antibody: use in diagnosis. *Br. J. Dermatol.* 115: 125-131.
2. Leigh, I.M. 1987. LH7.1 monoclonal antibody detects type VII collagen in the basement membrane of ectodermally derived epithelia including skin. *Epithelia* 1: 17-29.
3. Kirkham, N., et al. 1989. Type VII Collagen antibody LH 7.2 identifies basement membrane characteristics of thin malignant melanomas. *J. Pathol.* 157: 243-247.
4. Shimizu, H., et al. 1990. Epidermolysis bullosa acquisita antigen and the carboxy terminus of type VII collagen have a common immunolocalization to anchoring fibrils and lamina densa of basement membrane. *Br. J. Dermatol.* 122: 577-585.
5. Bateman, J.F., et al. 1996. Collagen Superfamily. In Comper, W.D., ed. *Extracellular Matrix, Volume 2: Molecular Components and Interactions*. Amsterdam: Harwood Academic Publishers, 22-67.
6. McCarthy, J.B., et al. 1996. Cell adhesion to collagenous matrices. *Biopolymers* 40: 371-381.

## CHROMOSOMAL LOCATION

Genetic locus: COL7A1 (human) mapping to 3p21.31; Col7a1 (mouse) mapping to 9 F2.

## SOURCE

COL7A1 (LH7.2) is a mouse monoclonal antibody raised against neonatal skin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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.

## RESEARCH USE

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

## APPLICATIONS

COL7A1 (LH7.2) is recommended for detection of Collagen Type VII of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

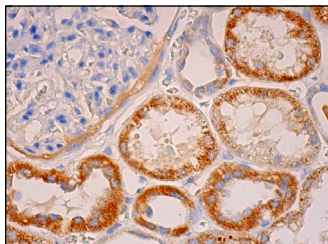
Suitable for use as control antibody for COL7A1 siRNA (h): sc-43066, COL7A1 siRNA (m): sc-43067, COL7A1 shRNA Plasmid (h): sc-43066-SH, COL7A1 shRNA Plasmid (m): sc-43067-SH, COL7A1 shRNA (h) Lentiviral Particles: sc-43066-V and COL7A1 shRNA (m) Lentiviral Particles: sc-43067-V.

Molecular Weight of COL7A1: 290 kDa.

## 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) 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. 3) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



COL7A1 (LH7.2): sc-53226. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules and basement membrane staining of endothelial cells.

## SELECT PRODUCT CITATIONS

1. De Rosa, L., et al. 2019. Laminin 332-dependent YAP dysregulation depletes epidermal stem cells in junctional epidermolysis bullosa. *Cell Rep.* 27: 2036-2049.e6.
2. Chen, D., et al. 2024. Repetitive transcranial magnetic stimulation alleviates MPTP-induced Parkinson's disease symptoms by regulating CaMKII-CREB-BMAL1 pathway in mice model. *Neuropsychiatr. Dis. Treat.* 20: 1693-1710.



See **COL7A1 (4D2): sc-33710** for COL7A1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.