

# COL6A1/2/3 (172C2): sc-47764

## 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

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- Boskey, A.L., et al. 1999. Collagen and bone strength. *J. Bone Miner. Res.* 14: 330-335.
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- Irwin, W.A., et al. 2003. Mitochondrial dysfunction and apoptosis in myopathic mice with Collagen VI deficiency. *Nat. Genet.* 35: 367-371.
- Gittenberger-de Groot, A.C., et al. 2003. Collagen Type VI expression during cardiac development and in human fetuses with trisomy 21. *Anat. Rec. A Discov. Mol. Cell. Evol. Biol.* 275: 1109-1116.
- Higuchi, I., et al. 2003. Pathological characteristics of skeletal muscle in Ullrich's disease with Collagen VI deficiency. *Neuromuscul. Disord.* 13: 310-316.

## CHROMOSOMAL LOCATION

Genetic locus: COL6A1/COL6A2 (human) mapping to 21q22.3, COL6A3 (human) mapping to 2q37.3.

## SOURCE

COL6A1/2/3 (172C2) is a mouse monoclonal antibody raised against native tetrameric Collagen Type VI 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.

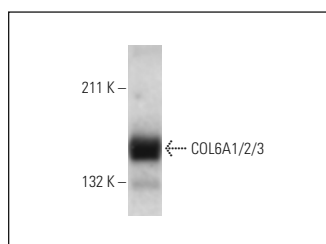
## APPLICATIONS

COL6A1/2/3 (172C2) is recommended for detection of Collagen  $\alpha$ 1 Type VI, Collagen  $\alpha$ 2 Type VI and Collagen  $\alpha$ 3 Type VI of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of COL6A1/2/3: 140 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, Hs68 cell lysate: sc-2230 or CCD-1064Sk cell lysate: sc-2263.

## DATA



COL6A1/2/3 (172C2): sc-47764. Western blot analysis of COL6A1/2/3 expression in WI-38 immunoprecipitated with Collagen Type VI (172C2): sc-47764 and detected with COL6A1 (H-200): sc-20649.

## SELECT PRODUCT CITATIONS

- Karousou, E., et al. 2013. New insights into the pathobiology of down syndrome—hyaluronan synthase-2 overexpression is regulated by Collagen VI  $\alpha$ 2 chain. *FEBS J.* 280: 2418-2430.
- Endicott, J., et al. 2017. Authentication of Collagen VI antibodies. *BMC Res. Notes* 10: 358.
- Gao, H., et al. 2020. Salidroside alleviates cartilage degeneration through NF $\kappa$ B pathway in osteoarthritis rats. *Drug Des. Devel. Ther.* 14: 1445-1454.
- Meylan, P., et al. 2021. Low expression of the PPAR $\gamma$ -regulated gene thioredoxin-interacting protein accompanies human melanoma progression and promotes experimental lung metastases. *Sci. Rep.* 11: 7847.

## 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.

## PROTOCOLS

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