SANTA CRUZ BIOTECHNOLOGY, INC.

COL6A2 (m): 293T Lysate: sc-119370

BACKGROUND

Collagens (COLs) are fibrous, extracellular matrix proteins with high tensile strength that function as the major components of connective tissue, such as tendons and cartilage. All COL proteins contain a triple helix domain and frequently show lateral self-association in order to form complex connective tissues. There are several types of COL proteins, including fibril-forming interstitial COLs (types I, II, III and V), basement membrane COLs (type IV) and beaded filament COLs (type VI). COL6A2 (collagen, type VI, α 2), also known as PP3610, is a 1,019 amino acid secreted protein that contains three VWFA domains and functions as the second of three α chains that comprise the type VI COL protein complex. Existing as a trimer with two other type VI α proteins, COL6A2 acts as a cell-binding protein that plays an important role in the organization of matrix components. Defects in the gene encoding COL6A2 are associated with Bethlem myopathy (BM) and Ullrich congenital muscular dystrophy (UCMD). Multiple isoforms of COL6A2 exist due to alternative splicing events.

REFERENCES

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3. Saitta, B., et al. 1990. Alternative splicing of the human α 2(VI) collagen gene generates multiple mRNA transcripts which predict three protein variants with distinct carboxyl termini. J. Biol. Chem. 265: 6473-6480.
4. Saitta, B., et al. 1991. The exon organization of the triple-helical coding regions of the human α 1(VI) and α 2(VI) collagen genes is highly similar. Genomics 11: 145-153.
5. Saitta, B., et al. 1992. Human α 2(VI) collagen gene. Heterogeneity at the 5'-untranslated region generated by an alternate exon. J. Biol. Chem. 267: 6188-6196.
6. Tillet, E., et al. 1994. Recombinant expression and structural and binding properties of α 1(VI) and α 2(VI) chains of human collagen type VI. Eur. J. Biochem. 221: 177-185.
7. Kuo, H.J., et al. 1997. Type VI collagen anchors endothelial basement membranes by interacting with type IV collagen. J. Biol. Chem. 272: 26522-26529.
8. Lucarini, L., et al. 2005. A homozygous COL6A2 intron mutation causes in-frame triple-helical deletion and nonsense-mediated mRNA decay in a patient with Ullrich congenital muscular dystrophy. Hum. Genet. 117: 460-466.
9. Lampe, A.K. and Bushby, K.M. 2005. Collagen VI related muscle disorders. J. Med. Genet. 42: 673-685.

CHROMOSOMAL LOCATION

Genetic locus: Col6a2 (mouse) mapping to 10 C1.

PRODUCT

COL6A2 (m): 293T Lysate represents a lysate of mouse COL6A2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

COL6A2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive COL6A2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.