

COL6A3 (E-14): sc-131138

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). COL6A3 (Collagen α -3(VI) chain), is a 3, 176 amino acid secreted protein that contains one Fibronectin type-III domain, one MPTI inhibitor domain and 12 VWFA domains and functions as the third (and largest) of 3 α chains of the type VI COL protein complex. Existing as a trimer with two other type VI α proteins, COL6A3 acts as a cell-binding protein that plays an important role in the organization of matrix components. Defects in the gene encoding COL6A3 are the cause of Bethlem myopathy (BM), a rare autosomal proximal myopathy, and Ullrich congenital muscular dystrophy (UCMD), an autosomal recessive congenital myopathy. Multiple isoforms of COL6A3 exist due to alternative splicing events.

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CHROMOSOMAL LOCATION

Genetic locus: COL6A3 (human) mapping to 2q37.3; Col6a3 (mouse) mapping to 1 D.

SOURCE

COL6A3 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Collagen α 3 Type VI of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131138 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COL6A3 (E-14) is recommended for detection of Collagen α 3 Type VI isoforms 1 and 2 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Collagen family members.

COL6A3 (E-14) is also recommended for detection of Collagen α 3 Type VI isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COL6A3 siRNA (h): sc-94560, COL6A3 shRNA Plasmid (h): sc-94560-SH and COL6A3 shRNA (h) Lentiviral Particles: sc-94560-V.

Molecular Weight of COL6A3 isoforms: 260-300 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.



Try **COL6A3 (A-5): sc-515335** or **COL6A1/2/3 (172C2): sc-47764**, our highly recommended monoclonal alternatives to COL6A3 (E-14).