COL11A2 (S-14): sc-131136

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BIOTECHNOLOGY

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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 inter-stitial COLs (types I, II, III and V), basement membrane COLs (type IV) and beaded filament COLs (type VI). COL11A2 (collagen, type XI, α 2), also known as Collagen α2 Type XI, HKE5, PARP, STL3, DFNA13 or DFNB53, is a 1,736 amino acid secreted protein that contains one TSP N-terminal domain and is thought to play an essential role in fibrillogenesis, specifically by con-trolling the lateral growth of collagen fibrils. Defects in the gene encoding COL11A2 are the cause of Stickler syndrome type 3 (STL3), autosomal reces-sive otospondylomegaepiphyseal dysplasia (OSMED), Weissenbacher-Zwey-mueller syndrome (WZS) and non-syndromic sensorineural deafness auto-somal dominant type 13 (DFNA13). Eight isoforms of COL11A2 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COL11A2 (human) mapping to 6p21.32.

SOURCE

COL11A2 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Collagen α2 Type XI of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-131136 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COL11A2 (S-14) is recommended for detection of Collagen α2 Type XI iso-forms 1-8 of human origin by Western Blotting (starting dilution 1:200, dilu-tion 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.

COL11A2 (S-14) is also recommended for detection of Collagen α2 Type XI in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COL11A2 siRNA (h): sc-95505, COL11A2 shRNA Plasmid (h): sc-95505-SH and COL11A2 shRNA (h) Lentiviral Particles: sc-95505-V.

Molecular Weight of COL11A2: 172 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 Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.