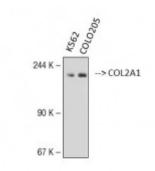


Anti-COL2A1 antibody



Western Blot (WB) analysis of 1. K562 2. COLO205 using COL2A1 Polyclonal Antibody. (STJ92387)



Description COL2A1 is a protein encoded by the COL2A1 gene which is

approximately 141,7 kDa. COL2A1 is secreted into the extracellular space. It is involved in collagen chain trimerization, the integrin pathway, ERK signalling and focal adhesion. It is a fibrillar collagen that is essential for the normal embryonic development of the skeleton, for linear growth and for the ability of cartilage to resist compressive forces. COL2A1 isoform 2 is highly expressed in juvenile chondrocyte. Mutations in the COL2A1 gene may result in Spondyloepiphyseal dysplasia. STJ92387 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of COL2A1 protein.

Model STJ92387

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IF, IHC, WB

Immunogen Synthesized peptide derived from human COL2A1

Immunogen Region 70-150 aa, N-terminal

Gene ID 1280

Gene Symbol COL2A1

Dilution range WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000

Specificity COL2A1 Polyclonal Antibody detects endogenous levels of COL2A1 protein.

Tissue Specificity Isoform 2 is highly expressed in juvenile chondrocyte and low in fetal

chondrocyte.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Collagen alpha-1 II chain Alpha-1 type II collagen Collagen alpha-1 II chain

Chondrocalcin

Molecular Weight 140 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:2200OMIM:108300

Alternative Names Collagen alpha-1 II chain Alpha-1 type II collagen Collagen alpha-1 II chain

Chondrocalcin

Function Type II collagen is specific for cartilaginous tissues. It is essential for the

normal embryonic development of the skeleton, for linear growth and for the

ability of cartilage to resist compressive forces.

Sequence and Domain Family The C-terminal propertide, also known as COLFI domain, have crucial roles

in tissue growth and repair by controlling both the intracellular assembly of procollagen molecules and the extracellular assembly of collagen fibrils. It

binds a calcium ion which is essential for its function.

Cellular Localization Secreted, extracellular space, extracellular matrix

Post-translational Probably 3-hydroxylated on prolines by LEPREL1 . Proline residues at the

third position of the tripeptide repeating unit (G-X-P) are hydroxylated in some or all of the chains. Proline residues at the second position of the

tripeptide repeating unit (G-P-X) are hydroxylated in some of the chains. The N-telopeptide is covalently linked to the helical COL2 region of alpha 1(IX), alpha 2(IX) and alpha 3(IX) chain. The C-telopeptide is covalently linked to

an another site in the helical region of alpha 3(IX) COL2.

Modifications