



Rabbit Anti-Collagen X antibody

SL0554R

Product Name Collagen X**Chinese Name** X型胶原抗体**Alias** Collagen type X; Col10a 1; Collagen alpha 1(X) chain; Collagen type X alpha 1 (Schmid metaphyseal chondrodysplasia); Collagen type X alpha 1; Collagen X alpha 1 polypeptide; CollagenX; fa66d11; fb10c08; OTTHUMP00000040411; Procollagen type X alpha 1; Schmid metaphyseal chondrodysplasia; wu:fa66d11; wu:fb10c08; COAA1_HUMAN; COL10A1; Collagen alpha-1(X) chain; collagen alpha-1(X) chain precursor; Schmid metaphyseal chondrodysplasia; collagen X, alpha-1 polypeptide.**Research Area** Cell biology immunology**Immunogen Species** Rabbit**Clonality** Polyclonal**React Species** Mouse,Rat (predicted:Human,Chicken,Dog,Cow,Rabbit,Pig)
IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)**Applications** not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.**Theoretical molecular weight** 73kDa**Cellular localization** Extracellular matrix**Form** Liquid**Concentration** 1mg/ml**immunogen** KLH conjugated synthetic peptide derived from human Collagen X: 601-680/680**Lsotype** IgG**Purification** affinity purified by Protein A**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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This gene encodes the alpha chain of type X collagen, a short chain collagen expressed by hypertrophic chondrocytes during endochondral ossification. Unlike type VIII collagen, the other short chain collagen, type X collagen is a homotrimer. Mutations in this gene are associated with Schmid type metaphyseal chondrodysplasia (SMCD) and Japanese type spondylometaphyseal dysplasia (SMD). [provided by RefSeq, Jul 2008].

Function:

Type X collagen is a product of hypertrophic chondrocytes and has been localized to presumptive mineralization zones of hyaline cartilage.

Subunit:

Homotrimer.

Subcellular Location:

Secreted, extracellular space, extracellular matrix.

Tissue Specificity:

Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.

**Product
Detail**

DISEASE:

Schmid type metaphyseal chondrodysplasia (SMCD) [MIM:156500]: Dominantly inherited disorder of the osseous skeleton. The cardinal features of the phenotype are mild short stature, coxa vara and a waddling gait. Radiography usually shows sclerosis of the ribs, flaring of the metaphyses, and a wide irregular growth plate, especially of the knees. A variant form of SMCD is spondylometaphyseal dysplasia Japanese type. It is characterized by spinal involvement comprising mild platyspondyly, vertebral body abnormalities, and end-plate irregularity. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:

Contains 1 C1q domain.

SWISS:

A1L4P2

Gene ID:

1300

Database links:

[Entrez Gene: 282416](#) Cow

[Entrez Gene: 1300](#) Human

[Entrez Gene: 12813](#) Mouse

[Entrez Gene: 25681](#) Rat

[Omim: 120110](#) Human

[SwissProt: P23206](#) Cow

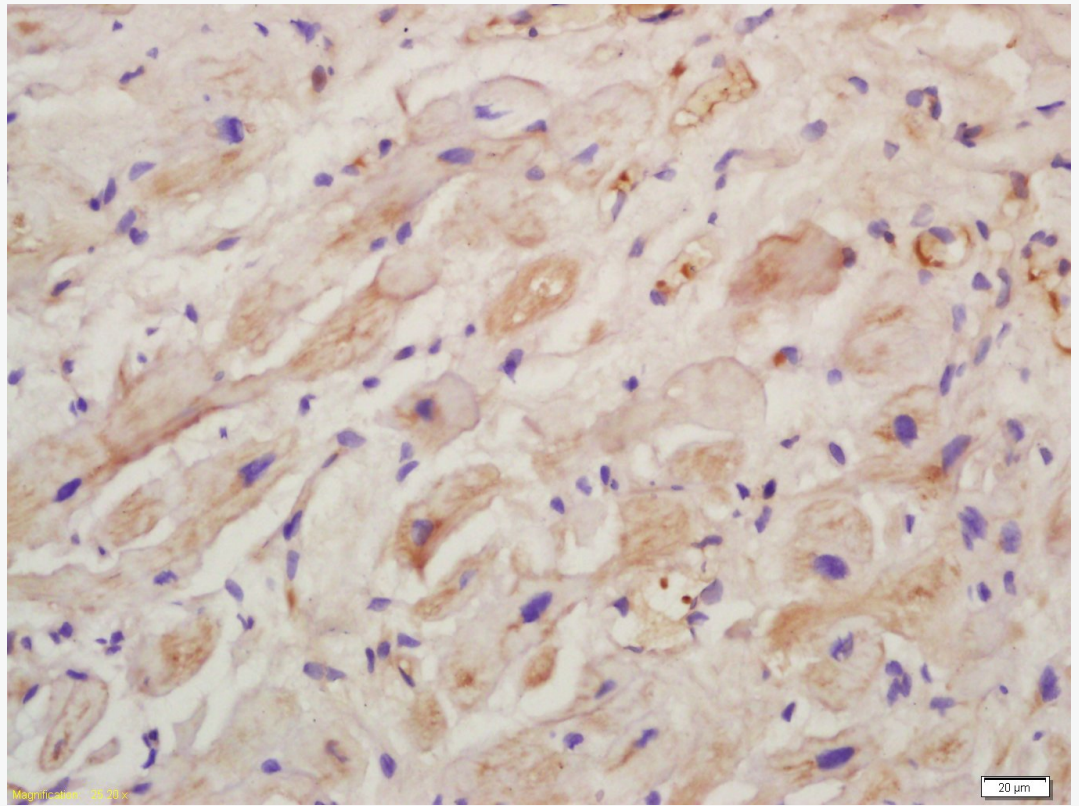
[SwissProt: A1L4P2](#) Human

[SwissProt: Q03692](#) Human

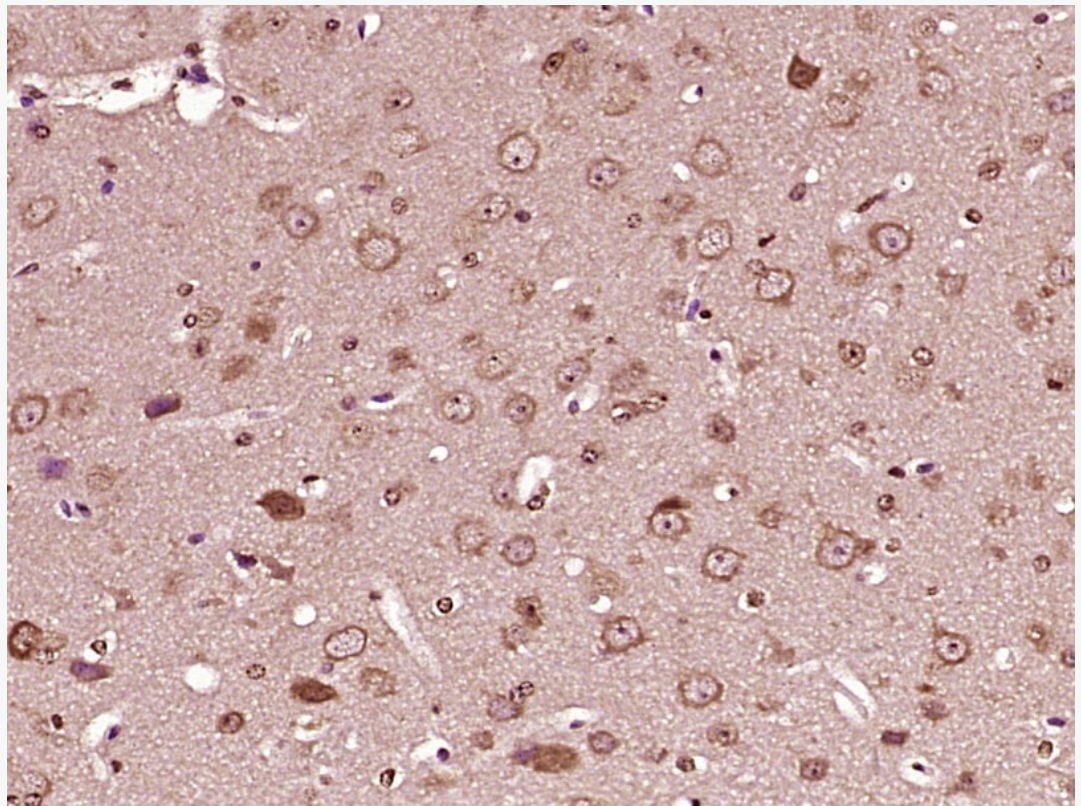
X型胶原是一种短链的非纤维性胶原，正常存在于软骨化骨中心及骨骺软骨生长板内，仅见于软骨细胞肥大区及钙化区前沿，在关节软骨见于钙化软骨层，由肥大软骨细胞特异表达，只短暂出现，可能参与软骨钙化的调节，是正常和异常骨形成的标志。

有学者认为：X型胶原在骨性关节炎中可作为软骨细胞表型不可逆转的诊断标志，是大量关节软骨细胞发生凋亡，最终导致关节软骨变薄，关节下骨变硬、增厚的主要原因。

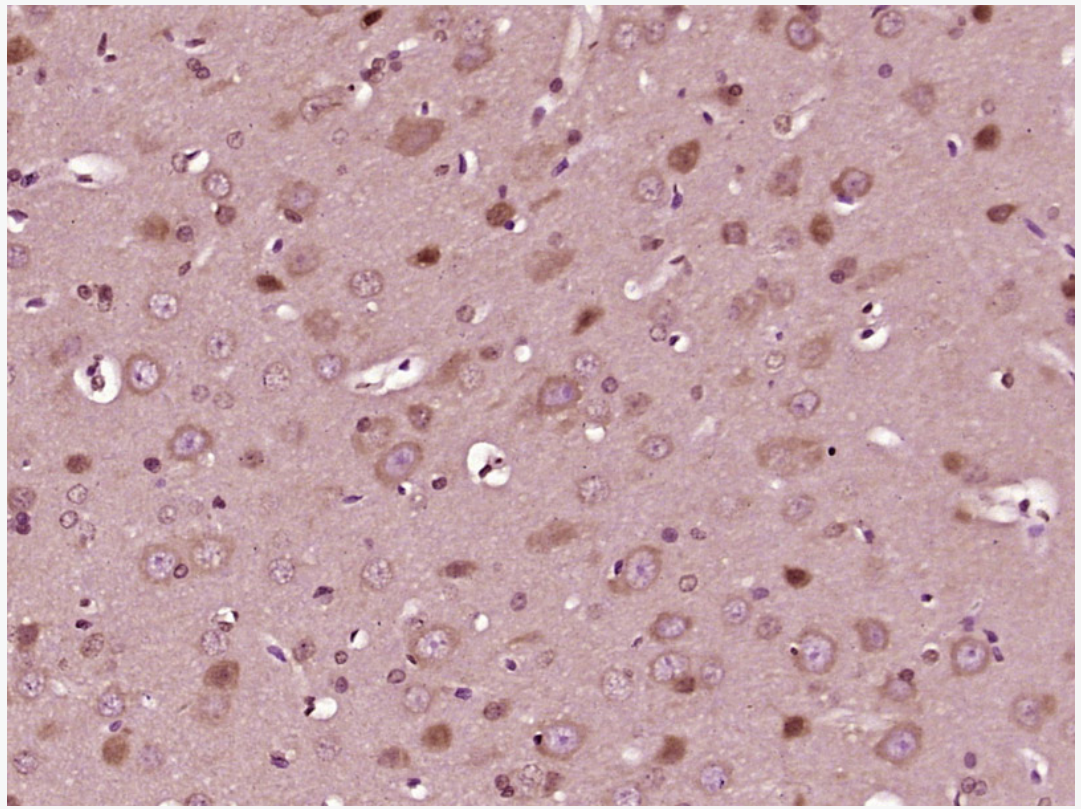
**Product
Picture**



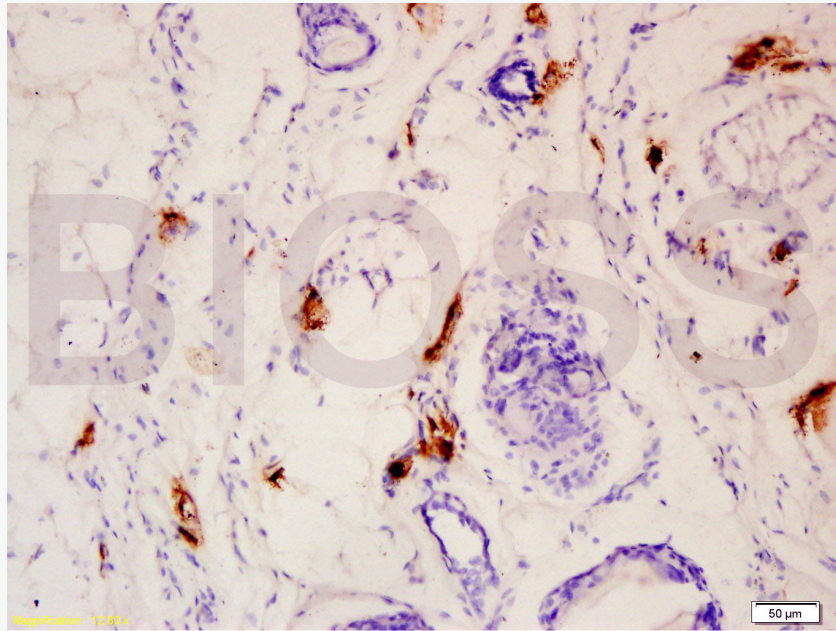
Paraformaldehyde-fixed, paraffin embedded (rat heart tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Collagen X) Polyclonal Antibody, Unconjugated (SL0554R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Collagen X) Polyclonal Antibody, Unconjugated (SL0554R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Collagen X) Polyclonal Antibody, Unconjugated (SL0554R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



bs-0554R Anti-Collagen X Polyclonal Antibody

Tissue/cell: rat skin tissue; 4% Paraformaldehyde-fixed and paraffin-embedded

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min

Block endogenous peroxidase by 3% Hydrogen peroxide for 30min

Blocking buffer (normal goat serum) at 37 °C for 20 min

Incubation: Anti-Collagen X Polyclonal Antibody, Unconjugated(bs-0554R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining