Best Tools for immunology Research

# COL12A1 Polyclonal Antibody

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|---|---|
| **Catalog No :** | YT1010 |
| **Reactivity :** | Human;Rat;Mouse; |
| **Applications :** | IHC;IF;ELISA |
| **Target :** | COL12A1 |
| **Fields :** | >>Protein digestion and absorption |
| **Gene Name :** | COL12A1 |
| **Protein Name :** | Collagen alpha-1(XII) chain |
| **Human Gene Id :** | 1303 |
| **Human Swiss Prot No :** | Q99715 |
| **Mouse Swiss Prot No :** | Q60847 |
| **Immunogen :** | The antiserum was produced against synthesized peptide derived from human Collagen XII alpha1. AA range:1481-1530 |
| **Specificity :** | COL12A1 Polyclonal Antibody detects endogenous levels of COL12A1 protein. |
| **Formulation :** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source :** | Polyclonal, Rabbit,IgG |
| **Dilution :** | IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications. |
| **Purification :** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Concentration :** | 1 mg/ml |
| **Storage Stability :** | -15°C to -25°C/1 year(Do not lower than -25°C) |

**Molecularweight :** 333kD

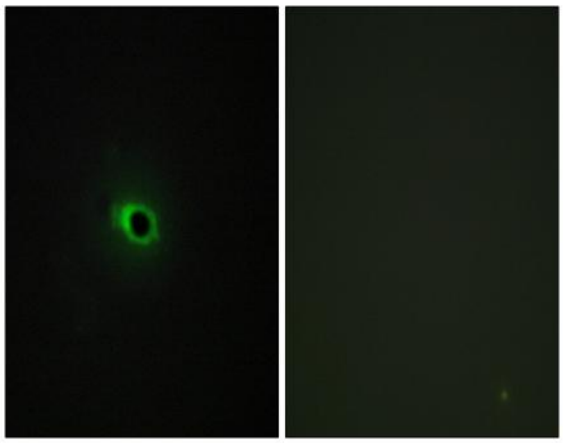
**Background :** This gene encodes the alpha chain of type XII collagen, a member of the FACIT (fibril-associated collagens with interrupted triple helices) collagen family. Type XII collagen is a homotrimer found in association with type I collagen, an association that is thought to modify the interactions between collagen I fibrils and the surrounding matrix. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008],

**Function :** alternative products:The final tissue form of collagen XII may contain homotrimers of either isoform 1 or isoform 2 or any combination of isoform 1 and isoform 2,function:Type XII collagen interacts with type I collagen-containing fibrils, the COL1 domain could be associated with the surface of the fibrils, and the COL2 and NC3 domains may be localized in the perifibrillar matrix.,PTM:Hydroxylation on proline residues within the sequence motif, GXPG, is most likely to be 4-hydroxy as this fits the requirement for 4-hydroxylation in vertebrates.,PTM:O-glycosylation of isoform 1; glycosaminoglycan of chondroitin-sulfate type.,PTM:The triple-helical tail is stabilized by disulfide bonds at each end.,similarity:Belongs to the fibril-associated collagens with interrupted helices (FACIT) family.,similarity:Contains 1 TSP N-terminal (TSPN) domain.,similarity:Contains 18 fibronectin type-III dom

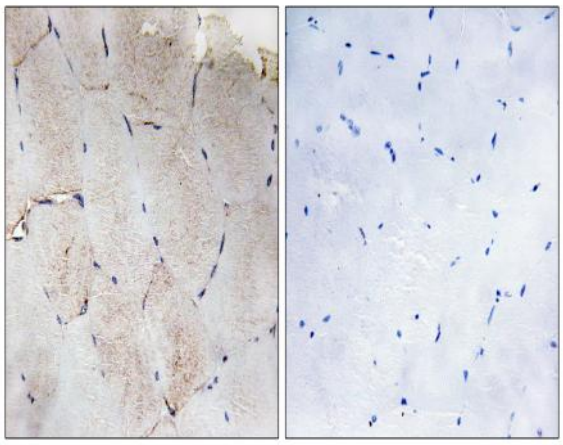
**Subcellular Location :** Secreted, extracellular space, extracellular matrix .

**Expression :** Found in collagen I-containing tissues: both isoform 1 and isoform 2 appear in amnion, chorion, skeletal muscle, small intestine, and in cell culture of dermal fibroblasts, keratinocytes and endothelial cells. Only isoform 2 is found in lung, placenta, kidney and a squamous cell carcinoma cell line. Isoform 1 is also present in the corneal epithelial Bowman's membrane (BM) and the interfibrillar matrix of the corneal stroma, but it is not detected in the limbal BM.

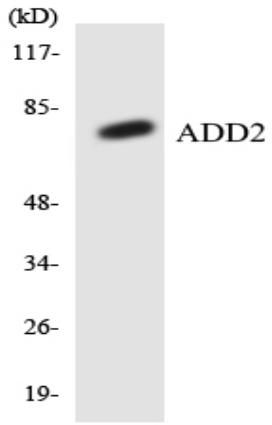
## Products Images



Immunofluorescence analysis of COS7 cells, using Collagen XII alpha1 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human skeletal muscle tissue, using Collagen XII alpha1 Antibody. The picture on the right is blocked with the synthesized peptide.




Western blot analysis of the lysates from HeLa cells using ADD2 antibody.