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# COL2A1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1418a

## Product Information

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| **Application** | IHC-P, E |
| **Primary Accession** | P02458 |
| **Other Accession** | Q91717, P05539, P28481, P02459, P02454, P11087, P02452, P02457, P02453 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Mouse, Rat, Chicken, Xenopus, Bovine |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB13827 |
| **Calculated MW** | 141785 |
| **Antigen Region** | 469-497 |

## Additional Information

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| **Gene ID** | 1280 |
| **Other Names** | Collagen alpha-1(II) chain, Alpha-1 type II collagen, Collagen alpha-1(II) chain, Chondrocalcin, COL2A1 |
| **Target/Specificity** | This COL2A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 469-497 amino acids from the N-terminal region of human COL2A1. |
| **Dilution** | IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | COL2A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | COL2A1 ( HGNC:2200) |
| **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 |

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| | ability of cartilage to resist compressive forces. |
| **Cellular Location** | Secreted, extracellular space, extracellular matrix {ECO:0000255\|PROSITE-ProRule:PRU00793} |
| **Tissue Location** | Isoform 2 is highly expressed in juvenile chondrocyte and low in fetal chondrocyte. |

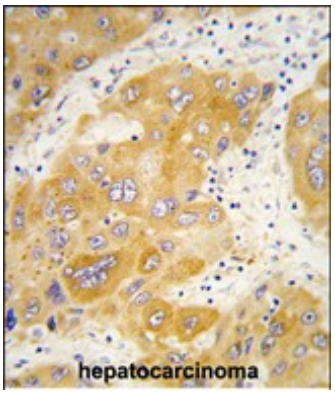
## Background

Alpha-1 chain of type II collagen is a fibrillar collagen found in cartilage and the vitreous humor of the eye. Mutant forms of this protein are associated with achondrogenesis, chondrodysplasia, early onset familial osteoarthritis, SED congenita, Langer-Saldino achondrogenesis, Kniest dysplasia, Stickler syndrome type I, and spondyloepimetaphyseal dysplasia Strudwick type. In addition, defects in processing chondrocalcin, a calcium binding protein that is the C-propeptide of this collagen molecule, are also associated with chondrodysplasia.

## References

Olavarrieta,L., Clin. Genet. 73 (3), 262-267 (2008)
McAlinden,A., Hum. Mutat. 29 (1), 83-90 (2008)
Forzano,F., Am. J. Med. Genet. A 143 (23), 2815-2820 (2007)

## Images




Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with COL2A1 antibody (N-term) (Cat.#AP1814a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

## Citations

- Fabrication and In Vitro Study of Tissue-Engineered Cartilage Scaffold Derived from Wharton's Jelly Extracellular Matrix.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.