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# COL2A1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1418b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P02458 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB13830 |
| **Calculated MW** | 141785 |
| **Antigen Region** | 1209-1237 |

## 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 1209-1237 amino acids from the C-terminal region of human COL2A1. |
| **Dilution** | WB~~1:1000 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 (C-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 ability of cartilage to resist compressive forces. |

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| **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)

## Citations

- Abnormal expression of key genes and proteins in the canonical Wnt/β-catenin pathway of articular cartilage in a rat model of exercise-induced osteoarthritis.