

Product datasheet

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ARG62450 anti-Collagen II antibody [5B2.5]

Package: $100 \mu l$ Store at: $4^{\circ}C$

Summary

Product Description Mouse Monoclonal antibody [5B2.5] recognizes Collagen II

Tested Reactivity Hu, Ms, Chk, Pig, Rb

Tested Application ICC/IF, IHC-Fr, IHC-P, WB

Specificity This antibody is highly specific to type II collagen and shows no cross-reaction with types I, III, IV, V, VI,

IX, X, or XI. In Western blotting, this antibody reacts with the TCA fragment of lathyritic type II collagen after digestion with mammalian collagenase. It does not react with pepsin-digested type II collagen.

Host Mouse

Clonality Monoclonal

Clone 5B2.5

Isotype IgG2a, kappa
Target Name Collagen II

Species Chicken

Immunogen A purified preparation of lathyritic type II collagen from embryonic chicken sternum

Conjugation Un-conjugated

Alternate Names Collagen alpha-1(II) chain; Alpha-1 type II collagen

Application Instructions

| Application table | Application | Dilution |
|-------------------|--|--------------|
| | ICC/IF | 1/10 - 1/500 |
| | IHC-Fr | 1/10 - 1/500 |
| | IHC-P | 1/10 - 1/500 |
| | WB | 1 - 2 μg/ml |
| Application Note | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |

Properties

| Form | Liquid |
|------|--------|
| | |

Purification Protein A purified

Buffer 1X PBS buffer with 0.1% sodium azide.

Preservative 0.1% sodium azide.

Concentration 2 mg/ml

Storage instruction Aliquot and store at 2-8°C. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.

The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol COL2A1

Gene Full Name collagen, type II, alpha 1

Background The alpha-1 chain of type II collagen, a fibrillar collagen found in cartilage and the vitreous humor of the

eye. Mutations in this gene 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. There are two transcripts identified for this gene. [provided by RefSeq, Jul 2008]

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. [provided by

Uniprot]

Research Area Developmental Biology antibody; Signaling Transduction antibody

Calculated Mw 142 kDa

PTM Probably 3-hydroxylated on prolines by LEPREL1 (By similarity). Proline residues at the third position of

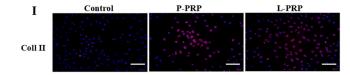
the tripeptide repeating unit (G-X-P) are hydroxylated in some or all of the chains. Proline residues at the

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.

Cellular Localization Secreted

Images



ARG62450 anti-Collagen II antibody [5B2.5] ICC/IF image

Immunofluorescence: Rabbit NPSC stained with ARG62450 anti-Collagen II antibody [5B2.5].

From Shan-Zheng Wang et al. Stem Cell Res Ther. (2018), <u>doi:</u> <u>10.1186/s13287-018-0937-7</u>, Fig. 6I.