

Rabbit Collagen Type II/COL2A1 Polyclonal Antibody | anti-COL2A1 antibody

Anti-Collagen Type II/COL2A1 Antibody Picoband

CATALOG # AAA126996	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

Collagen Type II/COL2A1; Polyclonal Antibody; Anti-Collagen Type II/COL2A1 Antibody Picoband; anti-COL2A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-COL2A1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E coli-derived human Collagen Type II/COL2A1 recombinant protein (Position: G1217-A1241). Human COL2A1 shares 92% and 96% amino acid (aa) sequence identity with mouse and rat COL2A1, respectively.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.

IMAGES



IHC (Immunohistochemisry)

Figure 3. IHC analysis of Collagen Type II/COL2A1 using anti-Collagen Type II/COL2A1 antibody (AAA126996).Collagen Type II/COL2A1 was detected in a paraffin-embedded section of rat knee cartilage tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Collagen Type II/COL2A1 Antibody (AAA126996) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IHC (Immunohiostchemistry)

Figure 2. IHC analysis of Collagen Type II/COL2A1 using anti-Collagen Type II/COL2A1 antibody (AAA126996).Collagen Type II/COL2A1 was detected in a paraffin-embedded section of mouse knee cartilage tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Collagen Type II/COL2A1 Antibody (AAA126996) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Collagen Type II/COL2A1 using anti-Collagen Type II/COL2A1 antibody (AAA126996). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat bone tissue lysates (100 degree C boiled for 5 minutes), Lane 2: rat bone tissue lysates (37 degree C incubated for 10 minutes), Lane 3: mouse bone tissue lysates (100 degree C boiled for 5 minutes). After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Collagen Type II/COL2A1 antigen affinity purified polyclonal antibody (#AAA126996) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Collagen Type II/COL2A1 at approximately 150-180 kDa. The expected band size for Collagen Type II/COL2A1 is at 142 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-COL2A1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-COL2A1 antibody	Primary Antibodies
References	1. Ahmad, N. N., Ala-Kokko, L., Knowlton, R. G., Jimenez, S. A., Weaver, E. J., Maguire, J. I., Tasman, W., Prockop, D. J. Stop codon in the procollagen II gene (COL2A1) in a family with the Stickler syndrome (arthro-ophthalmopathy). Proc. Nat. Acad. Sci. 88: 6624-6627, 1991. 2. Ahmad, N. N., Ala-Kokko, L., Knowlton, R. G., Weaver, E. J., Maguire, J. I., Tasman, W., Prockop, D. J. A stop codon in the gene for type II procollagen (COL2A1) causes one variant of arthro-ophthalmopathy (the Stickler syndrome). (Abstract) Am. J. Hum. Genet. 47 (suppl.): A206 only, 1990. 3. Ahmad, N. N., Dimascio, J., Knowlton, R. G., Tasman, W. S. Stickler syndrome: a mutation in the nonhelical 3-prime end of type II procollagen gene. Arch. Ophthalmol. 113: 1454-1457, 1995.

NCBI AND UNIPROT INFORMATION

NCBI GI #	111118976
NCBI GeneID	1280
NCBI Accession #	NP_001835.3
NCBI GenBank Nucleotide #	NM_001844.4
UniProt Accession #	P02458 ; Q12985 ; Q14009 ; Q14044 ; Q14045 ; Q14046 ; Q14047 ; Q14056 ; Q14058 ; Q16672 ; Q1JQ82 ; A6NGA0
Molecular Weight	141,785 Da
NCBI Official Full Name	collagen alpha-1(II) chain isoform 1
NCBI Official Synonym Full Names	collagen, type II, alpha 1
NCBI Official Symbol	COL2A1
NCBI Official Synonym Symbols	AOM; ANFH; SEDC; COL11A3
NCBI Protein Information	collagen alpha-1(II) chain; collagen alpha-1(II) chain; chondrocalcin; cartilage collagen; alpha-1 type II collagen; collagen II, alpha-1 polypeptide
UniProt Protein Name	Collagen alpha-1(II) chain
UniProt Gene Name	COL2A1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/collagen-type-ii-col2a1-antibody-immunohistochemistry-western-blot-elisa/126996>