ARG20787
anti-Collagen II antibody, pre-adsorbed

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes Collagen II
Tested Reactivity	Hu, Ms, Rat, Bov, Chk, Pig, Rb, Sheep
Tested Application	ELISA, EM, FLISA, ICC/IF, IHC-Fr, IHC-P, IP, WB
Specificity	The antibody reacts with conformational determinants on type II collagen. The antibody is pre-adsorbed with Collagen types I, III, IV, V and VI, so the antibody may not react with Collagen types I, III, IV, V and VI.
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	Collagen II
Species	Human
Immunogen	Collagen II
Conjugation	Un-conjugated
Alternate Names	AOM; ANFH; SEDC; STL1; COL11A3; Collagen alpha-1(II) chain; Alpha-1 type II collagen)

Application Instructions

Pre Adsorbed: Collagen types I, III, IV, V and VI.

Application table

Application	Dilution
ELISA	1:1,000 – 1:4,000
EM	Assay-dependent
FLISA	1:200 – 1:400
ICC/IF	Assay-dependent
IHC-Fr	Assay-dependent
IHC-P	1:100 – 1:300
IP	Assay-dependent
WB	1:100-1:300

Application Note: WB: The antibody reacts with native and denature form of Collagen II protein.
IHC-P: Antigen Retrieval: treat sections with 2 µg/ml proteinase K at 37°C for 15 min before staining.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

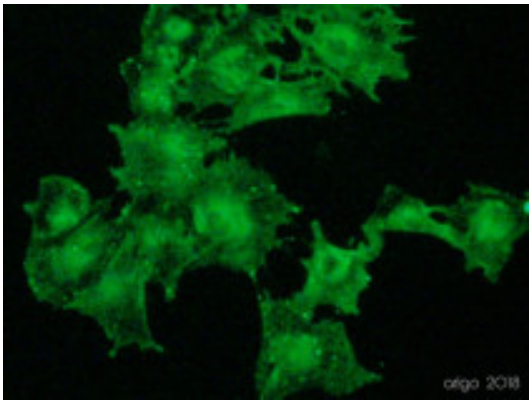
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	BBS (pH 8.2)
Concentration	0.4 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. 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

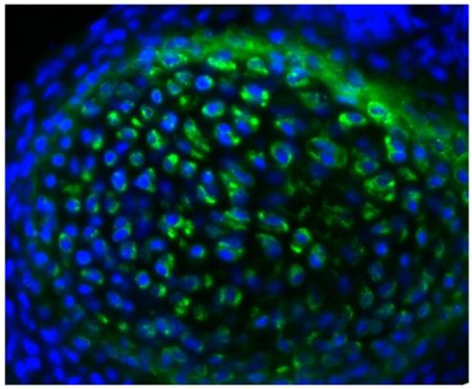
Gene Symbol	COL2A1
Gene Full Name	collagen, type II, alpha 1
Background	This gene encodes the alpha-1 chain of type II collagen, a fibrillar collagen found in cartilage and the vitreous humor of the eye. Mutations in this gene are associated with achondrogenesis, chondrodysplasia, early onset familial 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. [UniProt]
Highlight	Related products: Collagen II antibodies; Collagen ELISA Kits; Collagen Duos / Panels; Anti-Goat IgG secondary antibodies; Related news: Collagen I antibody for studying rabbit bone differentiation New antibody panels for Myofibroblasts and CAFs Gene therapy for retinitis pigmentosa (RP)
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.

Images



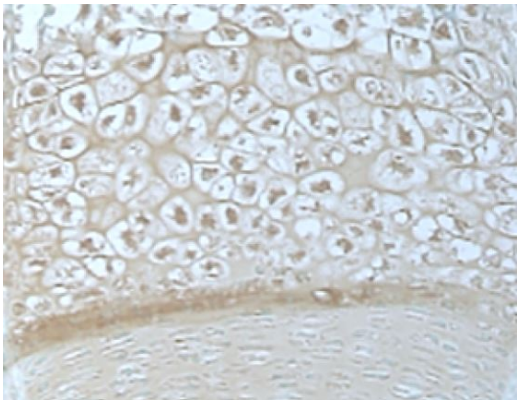
ARG20787 anti-Collagen II antibody, pre-adsorbed ICC/IF image

Immunofluorescence: Porcine primary chondrocytes fixed with 4% Paraformaldehyde for 10 min at RT and blocked by 1% BSA, 0.1% Triton for 30 min at RT. Cells were incubated in 5% BSA and stained with ARG20787 anti-Collagen II antibody (pre-adsorbed) at 1:100 for 3 hours at RT.



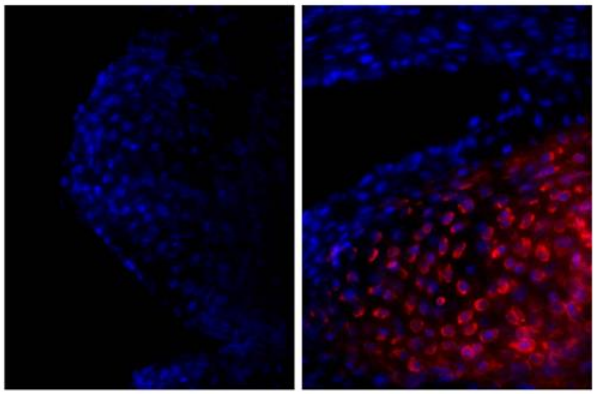
ARG20787 anti-Collagen II antibody (pre-adsorbed) IHC-Fr image

Immunohistochemistry: Frozen section of newborn Mouse rib tissue stained with ARG20787 anti-Collagen II antibody (pre-adsorbed) followed by Rabbit anti-Goat IgG (H+L) antibody (FITC) and DAPI.



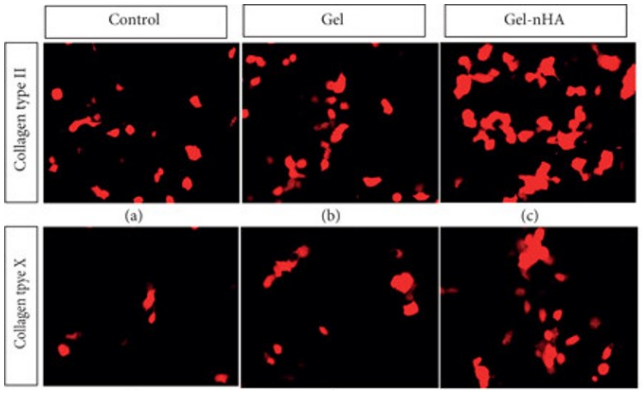
ARG20787 anti-Collagen II antibody, pre-adsorbed IHC-P image

Immunohistochemistry: Paraffin-embedded tibiae section from E15 mouse was stained with ARG20787 anti-Collagen II antibody (pre-adsorbed).



ARG20787 anti-Collagen II antibody (pre-adsorbed) IHC-Fr image

Immunohistochemistry: Frozen section of newborn Mouse cartilage tissue stained with ARG20787 anti-Collagen II antibody (pre-adsorbed) (right) followed by Donkey anti-Goat IgG (H+L) antibody (Alexa Fluor® 555) and DAPI.



ARG20787 anti-Collagen II antibody, pre-adsorbed ICC/IF image

Immunofluorescence: Human articular chondrocytes stained with ARG20787 anti-Collagen II antibody, pre-adsorbed and ARG59478 anti-Collagen X antibody.

From Yuxuan Zhang et al. Comput Math Methods Med (2022), doi: 10.1155/2022/8388473, Fig. 3 (a) (b) (c).