

Datasheet for ABIN5596824

anti-COL2 antibody[Go to Product page](#)**1** Validation**1** Image

Overview

Quantity:	100 µg
Target:	COL2
Reactivity:	Human, Mouse, Rat, Cow, Mammalian, Sheep
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This COL2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	Immunogen: Collagen Type II from human knee cartilage and bovine nasal cartilage. Immunogen Type: Native Protein
Isotype:	IgG
Cross-Reactivity (Details):	Typically negligible cross reactivity against other types of collagens was detected by ELISA against purified standards. Some class specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues. This antibody reacts with most mammalian Type II collagens and has negligible cross-reactivity with Type I, III, IV, V or VI collagens. Non-specific cross reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.
Purification:	Collagen II Antibody has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities.

Target Details

Target:	COL2
Alternative Name:	Collagen Type II (COL2 Products)
Background:	<p>Synonyms: Cartilage collagen antibody, Chondrocalcin antibody, COL11A3 antibody, COL2A1 antibody</p> <p>Background: Collagens are highly conserved throughout evolution and are characterized by an uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. For these reasons, it is often extremely difficult to generate antibodies with specificities to collagens. The development of 'type' specific antibodies is dependent on NON-DENATURED three-dimensional epitopes. We extensively purify collagens for immunization from human and bovine placenta and cartilage by limited pepsin digestion and selective salt precipitation. This preparation results in a native conformation of the protein. Antibodies are isolated from rabbit antiserum and are extensively cross-adsorbed by immunoaffinity purification to produce 'type' specific antibodies. Greatly diminished reactivity and selectivity of these antibodies will result if denaturing and reducing conditions are used for SDS-PAGE and immunoblotting. Ideal for investigators involved in Cell Biology, Signal Transduction and Stem Cell research.</p> <p>Gene Name: COL2A1</p>
Gene ID:	1280
UniProt:	P02458

Application Details

Application Notes:	<p>Immunohistochemistry Dilution: 1:50 - 1:400</p> <p>Application Note: Anti-Collagen antibodies have been used for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, immunoprecipitation, immunohistochemistry, native (non-denaturing, non-dissociating) PAGE, and western blotting for highly sensitive qualitative analysis.</p> <p>Western Blot Dilution: 1:1,000 - 1:10,000</p> <p>Immunoprecipitation Dilution: 1:100</p> <p>ELISA Dilution: 1:5,000 - 1:50,000</p>
Restrictions:	For Research Use only

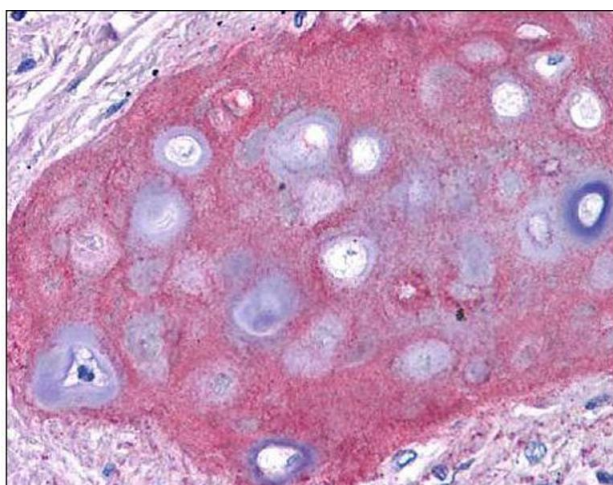
Handling

Format:	Liquid
Concentration:	1.0 mg/mL

Handling

Buffer:	Buffer: 0.125 M Sodium Borate, 0.075 M Sodium Chloride, 0.005 M EDTA, pH 8.0 Stabilizer: None
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	Store vial at 4° C prior to opening. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiry Date:	12 months

Images



Immunohistochemistry

Image 1. anti collagen II antibody (600-401-104 Lot 26014, 1:400, 45 min RT) showed moderate staining of in FFPE human bronchiolar cartilage (shown in image). Though not shown, faint to moderate staining of tonsillar squamous epithelium, prostatic stroma, breast, colon, placenta, and dermal connective tissues was also observed. All other tissues, including brain, breast epithelium, colon epithelium, heart, intestine, kidney, liver, lung, skeletal muscle, pancreas, spleen, testis, thymus, thyroid, and uterus were negative for staining. Slides were steamed in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes for antigen retrieval. Image provided courtesy of LifeSpan Biosciences, Seattle, WA



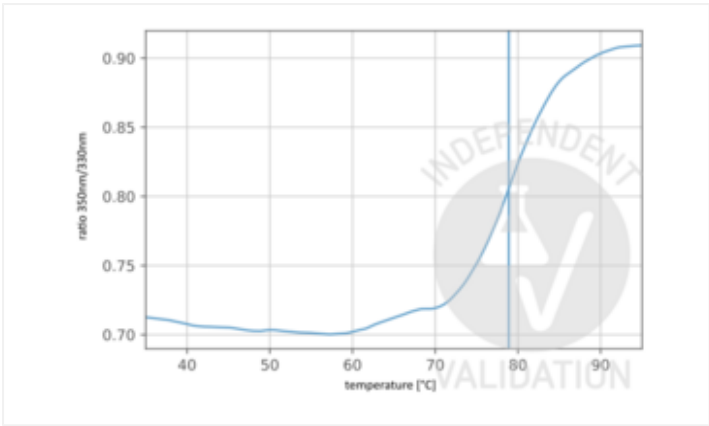
Successfully validated (Unfolding Profile (UP))

by [NanoTemper Technologies](#)

Report Number: 104083

Date: Jul 23 2019

Target:	COL2
Lot Number:	41639
Method validated:	Unfolding Profile (UP)
Positive Control:	ABIN5596824
Notes:	Passed. ABIN5596824 showed T_i at 78.9°C and a clear unfolding profile with one unfolding event. This suggests that the antibody is properly folded and functional.
Protocol:	<ul style="list-style-type: none">• Dilute ABIN5596824 in PBS buffer (Roth, 1058.1, Lot 285231988) to get a final volume of 30µl at a concentration of 0.1µM.• Load sample into Tycho capillary (NanoTemper Technologies, TY-C001).• Run Tycho measurement.
Experimental Notes:	Tycho is designed to run quick and precise protein quality check experiments. Tycho uses intrinsic protein fluorescence to follow protein unfolding while running a fast thermal ramp, yielding results in 3min. A protein's unfolding behavior is characterized by various parameters, most notably the inflection temperature (T_i). The T_i can be used to identify properly folded protein, to compare different batches, or to analyze the influence of storage/transport conditions on a protein. An absence of T_i would suggest that the protein is already unfolded and therefore most likely nonfunctional.



Validation image no. 1 for anti-Collagen, Type II (COL2) antibody (ABIN5596824)

Unfolding profile of ABIN5596824. The fluorescence signal is plotted against temperature. The vertical line indicates the T_i at 78.9°C.