Datasheet for ABIN5596824

anti-COL2A1 antibody

1 Validation

1 Image

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Overview

Quantity:	100 µg
Target:	COL2A1
Reactivity:	Human, Cow
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP), Fluorescence Microscopy (FM), Dot Blot (DB)

Product Details

Purpose:	Collagen Type II Antibody
Immunogen:	Immunogen: Collagen Type II from human knee cartilage and bovine nasal cartilage. Immunogen Type: Native Protein
Isotype:	IgG
Cross-Reactivity (Details):	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.
Characteristics:	Synonyms: rabbit anti-Collagen Type II antibody, Collagen alpha-1 (II) chain, Alpha-1 type II collagen, Cartilage collagen antibody, Chondrocalcin antibody, COL2A1 antibody
Purification:	Collagen II Antibody has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens.
Sterility:	Sterile filtered

Target Details

Target:	COL2A1
Alternative Name:	COL2A1 (COL2A1 Products)
Background:	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. Rockland extensively purifies 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.
Gene ID:	1280
NCBI Accession:	NP_001835
UniProt:	P02458
Pathways:	Sensory Perception of Sound, Growth Factor Binding

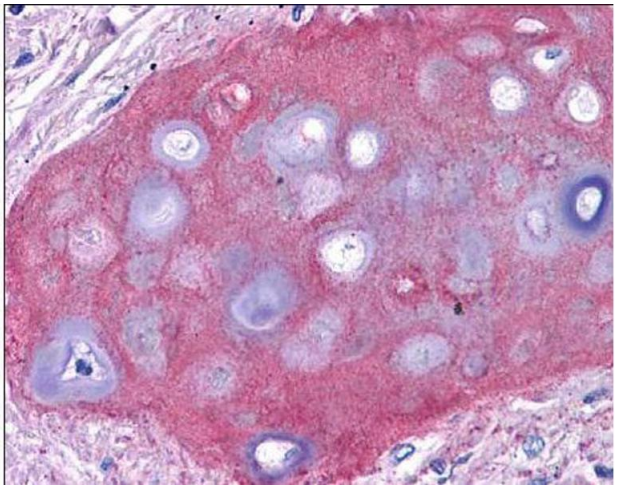
Application Details

Application Notes:	Immunohistochemistry Dilution: 1:50 - 1:400 Application Note: Anti-Collagen Type II has been tested by dot blot and IHC and is suitable 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. Western Blot Dilution: 1:1,000 - 1:10,000 Immunoprecipitation Dilution: 1:100 ELISA Dilution: 1:5,000 - 1:50,000 IF Microscopy Dilution: User Optimized Other: User Optimized
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
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

Validation report #104083 for Unfolding Profile (UP)

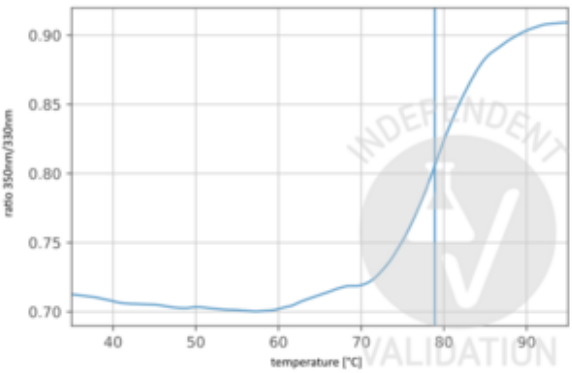
Successfully validated (Unfolding Profile (UP))

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:	• 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, alpha 1 (COL2A1) antibody (ABIN5596824)

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