Product Datasheet

Collagen II Antibody - BSA Free

NBP1-77795-0.05mg

Unit Size: 0.05 mg

Store at 4C short term. For extended storage, add an equal volume of glycerol, aliquot and store at -20C or below. Avoid repeated freeze-thaw cycles.

Publications: 8

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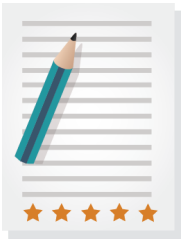
Updated 2/21/2025 v.20.1



NBP1-77795-0.05mg

Collagen II Antibody - BSA Free

Product Information

Unit Size	0.05 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. For extended storage, add an equal volume of glycerol, aliquot and store at -20C or below. Avoid repeated freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description

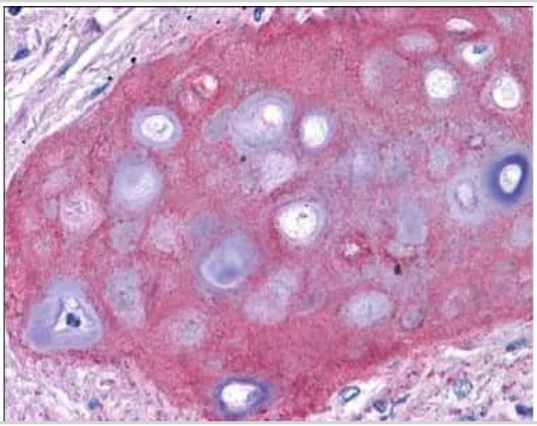
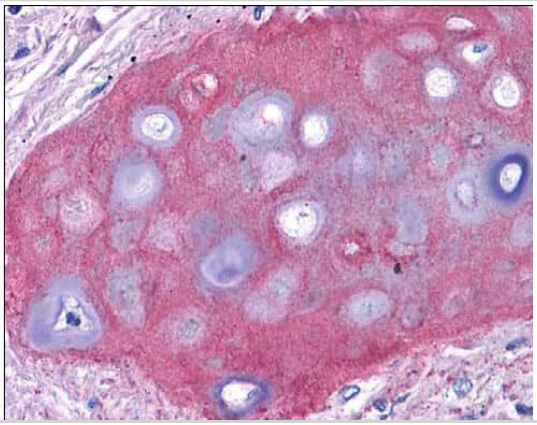
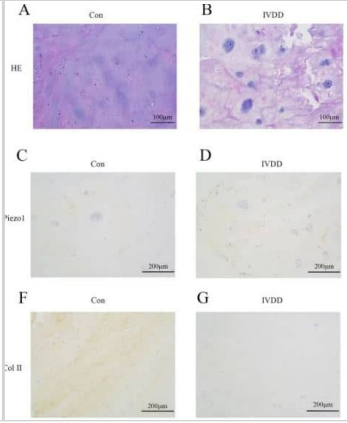
Description	This antibody has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. Some class specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues. Store vial at 4C prior to opening. This product is stable at 4C 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 -20C or below. Avoid cycles of freezing and thawing.
Host	Rabbit
Gene ID	1280
Gene Symbol	COL2A1
Species	Human, Mouse, Rat, Bovine, Sheep
Reactivity Notes	This antibody reacts with most mammalian Collagen II and has expected cross-reactivity with Type IV and VI and negligible cross reactivity to Type I, III and V collagens. Canine reactivity reported in scientific literature (PMID: 22972852). Avian reactivity reported in scientific literature (PMID: 24739280). Bovine reactivity reported in scientific literature (PMID: 23688110). Silk worm reactivity reported in scientific literature (PMID: 23845228).
Specificity/Sensitivity	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 Collagen II and has expected cross-reactivity with Type IV and VI and negligible cross reactivity to Type I, III and V collagens. Non-specific cross reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins has not been tested.
Immunogen	Collagen II from human knee cartilage and bovine nasal cartilage. (Uniprot: P02458)

Product Application Details

Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation

Recommended Dilutions	Western Blot 1:1000-1:10000, ELISA 1:5000-1:50000, Immunohistochemistry 1:50-1:400, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1:100, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen
Application Notes	This product 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. Use in Immunohistochemistry-Frozen was reported in scientific literature (PMID: 31073980).

Images

Immunohistochemistry: Collagen II Antibody [NBP1-77795] - 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 99-100C - 20 minutes for antigen retrieval.	
anti collagen II antibody (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 99-100C - 20 minutes for antigen retrieval. Image provided courtesy of LifeSpan Biosciences, Seattle, WA	
Immunohistochemistry: Collagen II Antibody [NBP1-77795] - Histological analysis and the expression of PIEZO1 (NBP1-78537) and collage II (NBP1-77795) in human nucleus pulposus tissues. A, B Hematoxylin and eosin (H&E) staining in human NP tissues of the control or the IVDD group (200×). C, D PIEZO1 immunostaining in human NP tissues of the control or the IVDD group (100×). E The percentage of PIEZO1 positive cells to all cells in the field (%). F, G Collagen II immunostaining in human NP tissues of the control or the IVDD group (100×). Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/35606793/) licensed under a CC-BY license.	

Publications

L Song, X Li, Q Sun, Y Zhao Fxyd5 activates the NF?kappaB pathway and is involved in chondrocytes inflammation and extracellular matrix degradation Molecular Medicine Reports, 2022-02-22;25(4):. 2022-02-22 [PMID: 35191523]

S Shi, XJ Kang, Z Zhou, ZM He, S Zheng, SS He Excessive mechanical stress-induced intervertebral disc degeneration is related to Piezo1 overexpression triggering the imbalance of autophagy/apoptosis in human nucleus pulpous Arthritis Research & Therapy, 2022-05-23;24(1):119. 2022-05-23 [PMID: 35606793]

Song X, Wang X, Guo L et al. Etanercept embedded silk fibroin/pullulan hydrogel enhance cartilage repair in bone marrow stimulation Frontiers in bioengineering and biotechnology 2022-12-08 [PMID: 36568290] (ICC/IF, Rabbit)

Shimada M, Kanno N, Ichinohe T et al. Prophylactic Efficacy of Tibial Plateau Levelling Osteotomy for a Canine Model with Experimentally Induced Degeneration of the Cranial Cruciate Ligament Veterinary and comparative orthopaedics and traumatology : V.C.O.T 2021-09-21 [PMID: 34547788]

Fan Z, Liu Y, Shi Z et al. MiR-155 promotes interleukin-1 beta -induced chondrocyte apoptosis and catabolic activity by targeting PIK3R1-mediated PI3K/Akt pathway J. Cell. Mol. Med. 2020-06-20 [PMID: 32562373] (WB, Human)

Nishida Y, Nakamura M, Urata Y et al. Polyhydroxybutyrate/Chitosan 3D Scaffolds Promote In Vitro and In Vivo Chondrogenesis Appl. Biochem. Biotechnol. 2019-05-09 [PMID: 31073980] (IHC-Fr, Mouse)

Thakor Dk, Wang L, Benedict D et al. Establishing an Organotypic System for Investigating Multimodal Neural Repair Effects of Human Mesenchymal Stromal Stem Cells. Curr Protoc Stem Cell Biol. 2018-07-18 [PMID: 30021049] (IF/IHC, Human)

Calik J, Pula B, Piotrowska A et al. Prognostic Significance of NOGO-A/B and NOGO-B Receptor Expression in Malignant Melanoma - A Preliminary Study Anticancer Res. 2016-07-01 [PMID: 27354599]

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Products Related to NBP1-77795-0.05mg

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-97243	Collagen II Native Protein

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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