

Product Datasheet

Collagen II Antibody (5B2.5) - BSA Free NB600-844

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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Updated 10/23/2024 v.20.1

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NB600-844

Collagen II Antibody (5B2.5) - BSA Free

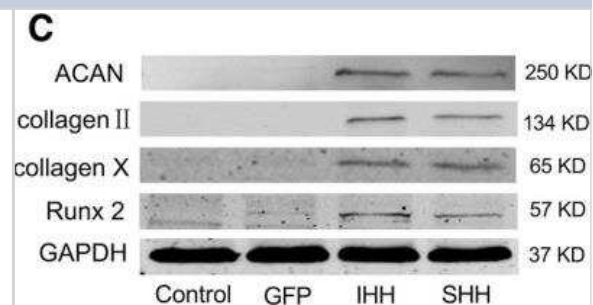
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	5B2.5
Preservative	0.02% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein A purified
Buffer	PBS

Product Description	
Host	Mouse
Gene ID	1280
Gene Symbol	COL2A1
Species	Human, Mouse, Rat, Chicken, Rabbit
Reactivity Notes	Use in Rabbit reported in scientific literature (PMID:35441114).Rat reactivity reported in scientific literature (PMID: 24349545). Rabbit reactivity reported in scientific literature (PMID: 15621244). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information. Rabbit reactivity reported in scientific literature (PMID:33120203).
Immunogen	A purified preparation of lathyrin type II collagen from embryonic chicken sternum

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1-2 ug/ml, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Paraffin 1:100-1:2000, Immunohistochemistry-Frozen 1:10-1:500

Images

Western Blot: Collagen II Antibody (5B2.5) [NB600-844] - Expression levels of related genes during differentiation induction in the 2D environment. Expression of ACAN, collagen II, collagen X and Runx2 was detected by western blotting on day 10 during induction. Image collected and cropped by Citeab from the following publication (Chondrogenic differentiation of bone marrow-derived mesenchymal stem cells following transfection with Indian hedgehog and sonic hedgehog using a rotary cell culture system. Cell Mol Biol Lett (2019)) licensed under a CC-BY license.



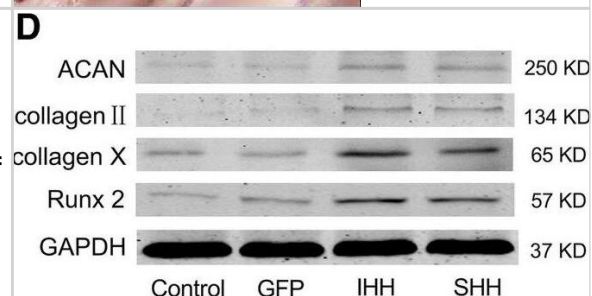
Immunohistochemistry-Paraffin: Collagen II Antibody (5B2.5) [NB600-844] - Staining results for the process of differentiation induction in the RCCS environment. Collagen II immune-histochemical staining on cells after inoculation onto slides. Image collected and cropped by Citeab from the following publication (Chondrogenic differentiation of bone marrow-derived mesenchymal stem cells following transfection with Indian hedgehog and sonic hedgehog using a rotary cell culture system. Cell Mol Biol Lett (2019)) licensed under a CC-BY license.



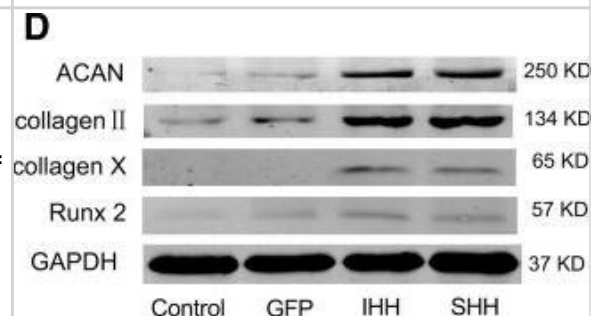
Immunohistochemistry-Paraffin: Collagen II Antibody (5B2.5) [NB600-844] - Analysis of a FFPE section of human cartilage using 1:200 dilution of Collagen II [5B2.5] antibody (NB600-844). The signal was developed using HRP-DAB method which followed counterstaining of the cells with hematoxylin.



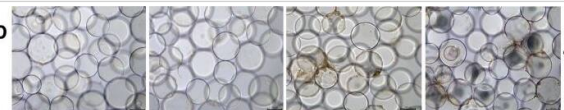
Expression levels of related genes during differentiation induction in the 2D environment. (a) qRT-PCR analysis of Sox9, ACAN & collagen II on days 7, 14 & 21 during induction. (b) qRT-PCR analysis of collagen X, Runx2 & annexin V on days 7, 14 & 21 during induction. The results were normalized to B2M mRNA expression. Values are means \pm SD (n = 3). (c) Expression of ACAN, collagen II, collagen X & Runx2 was detected by western blotting on day 10 during induction. (d) Expression of ACAN, collagen II, collagen X & Runx2 was detected by western blotting on day 21 during induction. Significant differences from the control group (non-transfection cells) are indicated by *p < 0.05 or **p < 0.01; differences between IHH & SHH transfection groups are indicated by #p < 0.05 or ###p < 0.01 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30858866>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



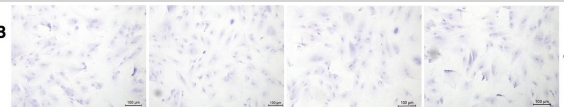
Expression levels of related genes during differentiation induction in the RCCS environment. (a) qPCR analysis of Sox9, ACAN & collagen II on days 7, 14 & 21 during induction. (b) qRT-PCR analysis of collagen X, Runx2, & annexin V on days 7, 14 & 21 during induction. The results were normalized to B2M mRNA expression. Values are means \pm SD (n = 3). (c) Expression of ACAN, collagen II, collagen X & Runx2 was detected by western blotting on day 10 during differentiation induction. (d) Expression of ACAN, collagen II, collagen X & Runx2 was detected by western blotting on day 21 during differentiation induction. Significant differences from the control group (non-transfection cells) are indicated by *p < 0.05 or ** p < 0.01; differences between IHH & SHH transfection groups are indicated by #p < 0.05 or ###p < 0.01 Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30858866>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Collagen II Antibody (5B2.5) - BSA Free [NB600-844] - Staining results for the process of differentiation induction in the RCCS environment. (a) Cellular morphology. (b) Toluidine blue staining on cell-microcarrier complexes. (c) Toluidine blue staining on cells after inoculation onto slides. (d) Collagen II immunohistochemical staining on cell-microcarrier complexes. (e) Collagen II immune-histochemical staining on cells after inoculation onto slides. (f) Annexin V-Cy3 immunofluorescence staining. (Bar = 100 um) Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30858866>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunohistochemistry: Collagen II Antibody (5B2.5) - BSA Free [NB600-844] - Staining results for the process of differentiation induction in the 2D environment. (a) Toluidine blue staining; (b) Collagen II immunohistochemical staining; (c) Annexin V-Cy3 immunofluorescence staining. (Bar = 100 um) Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30858866>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Lee KW, Chung K, Nam DH et al. Decellularized allogeneic cartilage paste with human costal cartilage and crosslinked hyaluronic acid-carboxymethyl cellulose carrier augments microfracture for improved articular cartilage repair *Acta biomaterialia* 2023-10-07 [PMID: 37813156]

Zhang A, Sun L, Chen K et al. 3D printing viscoelastic hydrogel-based scaffolds with a swelling-dependent gate for cartilage injury regeneration *Chemical Engineering Journal* 2023-11-01 (IHC)

Details:
Scaffold

Wang Y, Zhou Y, Gao X et al. Duhuo Jisheng Decoction Regulates Intracellular Zinc Homeostasis by Enhancing Autophagy via PTEN/Akt/mTOR to Improve Knee Cartilage Degeneration *bioRxiv* 2023-08-22 (IHC, Rat)

Saranya M, da Silva AM, Karjalainen H et al. Magnetic-Responsive Carbon Nanotubes Composite Scaffolds for Chondrogenic Tissue Engineering *Advanced healthcare materials* 2023-09-02 [PMID: 37660271] (IHC, Human)

Jiang X, Wojtkiewicz M, Patwardhan C et al. The effects of maturation and aging on the rotator cuff tendon-to-bone interface *The FASEB Journal* 2022-03-18 [PMID: 34822203] (Block/Neutralize)

Vögler J, Katona B, Takács R et al. Cyclic uniaxial mechanical load enhances chondrogenesis through entraining the molecular circadian clock *Journal of Pineal Research* 2022-11-01 [PMID: 36030553] (Immunohistochemistry)

Jun Z, Yuping W, Yanran H et al. Human acellular amniotic membrane scaffolds encapsulating juvenile cartilage fragments accelerate the repair of rabbit osteochondral defects *Bone & Joint Research* 2022-06-09 [PMID: 35678202]

Yang Y, Wang X, Zha K et al. Porcine fibrin sealant combined with autologous chondrocytes successfully promotes full-thickness cartilage regeneration in a rabbit model *Journal of Tissue Engineering and Regenerative Medicine* 2021-09-01 [PMID: 34044473] (Immunohistochemistry)

Takács R, Vágó J, Póliska S et al. The temporal transcriptomic signature of cartilage formation *Nucleic acids research* 2023-05-08 [PMID: 36987858] (IHC-P, Chicken)

Details:
1:500 IHC-P dilution

Zheng Z, Xu J, Tu Z et al. Promoter DNA Hypermethylation of Latexin Promotes Inflammatory Activation of Fibro-Nucleus Pulposus Cells in Intervertebral Disc Degeneration *papers.ssrn.com* 2023-05-22 (WB, Human)

Luo Z, Liu Z, Yu H et al. Multifunctional mesoporous polydopamine near-infrared photothermal controlled release of kartogenin for cartilage repair *Materials & Design* 2023-07-01

Huang D, Li Y, Ma Z et al. Collagen hydrogel viscoelasticity regulates MSC chondrogenesis in a ROCK-dependent manner *Science advances* 2023-02-10 [PMID: 36763657] (IHC, Rabbit)

More publications at <http://www.novusbio.com/NB600-844>





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Products Related to NB600-844

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)
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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