

# Product Datasheet

## Patched 1/PTCH Antibody - BSA Free NB200-118

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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### Publications: 7

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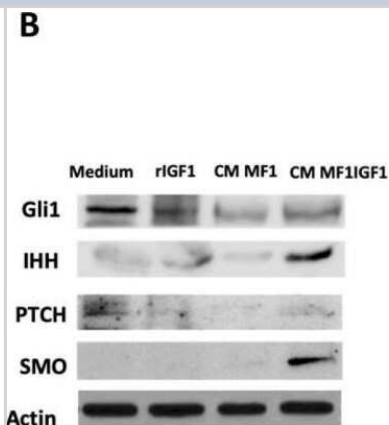
**NB200-118**

Patched 1/PTCH Antibody - BSA Free

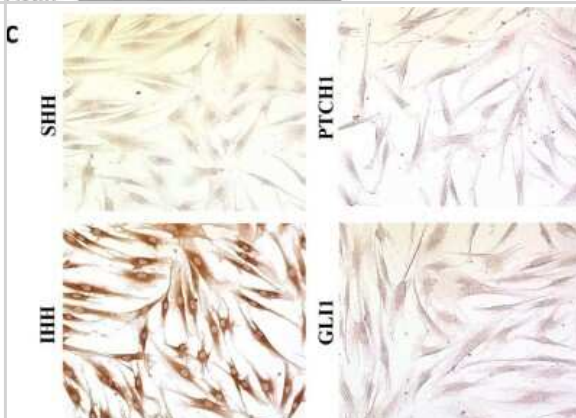
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	161 kDa
Product Description	
Description	Novus Biologicals Rabbit Patched 1/PTCH Antibody - BSA Free (NB200-118) is a polyclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-Patched 1/PTCH Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	5727
Gene Symbol	PTCH1
Species	Human, Mouse, Rat
Reactivity Notes	Reacts with human, mouse, and rat.
Specificity/Sensitivity	Patched 1
Immunogen	A synthetic peptide made to residues 269-279 of the human and mouse PTCH protein.
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:500-1:1000, ELISA 1:100-1:2000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500
Application Notes	This antibody may be used for Western blot analysis where a band is seen at ~161 kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

## Images

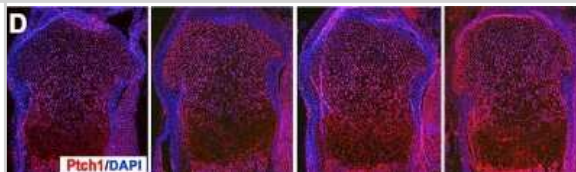
Western Blot: Patched 1/PTCH Antibody - BSA Free [NB200-118] - Regulation of AKT and HH pathways in SCC-4 by stimulation with IGF-1 or fibroblast-conditioned media. SCC-4 cells were stimulated for 24 h with 10% FBS, 100 ng/mL rIGF-1 or 50% conditioned medium from control fibroblasts (MF1) or cells overexpressing IGF-1 (MF1-IGF-1). Western blot analysis was performed to detect GLI1, IHH, PTCH1 and SMO band intensities were measured and plotted using ImageJ. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/32899449/](https://pubmed.ncbi.nlm.nih.gov/32899449/)) licensed under a CC-BY license.



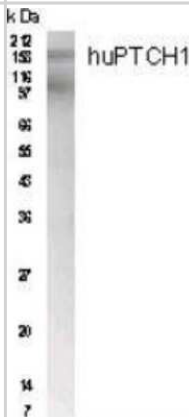
Immunocytochemistry/Immunofluorescence: Patched 1/PTCH Antibody - BSA Free [NB200-118] - Evaluation of IGF-1, IGF1R and HH pathway expression in fibroblasts and oral squamous carcinoma cells. IGF1 mRNA expression in SCC-4 and MF1 cells, evaluated by RT-qPCR. (C) Evaluation of HH pathway component expression in MF1 by immunocytochemistry. Patched 1/PTCH Antibody (NB200-118); Sonic Hedgehog/Shh Antibody (NBP2-22126). Magnification: 400x. Image collected and cropped by CiteAb from the following publication ([//pubmed.ncbi.nlm.nih.gov/32899449/](https://pubmed.ncbi.nlm.nih.gov/32899449/)) licensed under a CC-BY license.



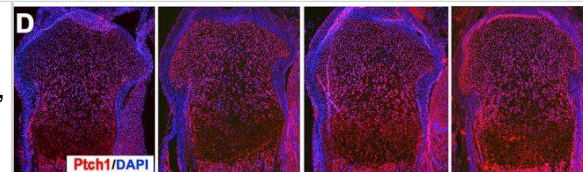
Immunohistochemistry: Patched 1/PTCH Antibody - BSA Free [NB200-118] - Increased *Ihh* mRNA and protein levels and activity in *Smad2* and *Smad3* mutant growth plates. All images are P0 proximal tibias. Immunostaining for *Ptch1*, showing increased protein levels throughout the growth plate in mutants, particularly in the resting zone. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pgen.1006352>) licensed under a CC-BY license.



Western Blot: Patched 1/PTCH Antibody - BSA Free [NB200-118] - Analysis of Human PTCH1 in Fetal brain Lysate with anti huPTCH1 at a 1:500 dilution.



Increased Ihh mRNA and protein levels and activity in Smad2 and Smad3 mutant growth plates. All images are P0 proximal tibias (A) RNA in situ hybridization for Ihh showing increased expression in Smad2CKO, Smad3<sup>-/-</sup>, and double mutant growth plates. (B) Immunostaining for Ihh protein showing diffusion into the resting zones of Smad2CKO, Smad3<sup>-/-</sup>, and double mutant growth plates. (C) Magnifications of the boxed regions in (B). (D) Immunostaining for Ptch1, showing increased protein levels throughout the growth plate in mutants, particularly in the resting zone. (E) Immunostaining for phospho-Smad1/5/8 (PS158) protein showing no significant difference in levels of activated BMP signaling comparing Smad2CKO, Smad3<sup>-/-</sup>, or double mutant to control Smad2<sup>fx/fx</sup> growth plates. Smad2CKO = Smad2<sup>fx/fx</sup>;Col2a1Cre. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/27741240>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Wang S, Tanaka Y, Xu Y, Takeda S et al. KIF3B promotes a PI3K signaling gradient causing changes in a Shh protein gradient and suppressing polydactyly in mice *Dev Cell* 2022-10-11 [PMID: 36220081]

Ferreira Mendes, J M, de Faro Valverde, L Et al. Effects of IGF-1 on Proliferation, Angiogenesis, Tumor Stem Cell Populations and Activation of AKT and Hedgehog Pathways in Oral Squamous Cell Carcinoma. *Int J Mol Sci* 2020-09-05 [PMID: 32899449] (IF/IHC, Rat)

Gonzalez A C, Santos E T et al. Participation of the Immune System and Hedgehog Signaling in Neoangiogenesis Under Laser Photobiomodulation. *J Lasers Med Sci* 2019-12-26 [PMID: 31875124] (IF/IHC, Rat)

Bacelar Sacramento de AraUjo T, de Oliveira Siquara da Rocha L, Torres Andion Vidal M et al. GANT61 Reduces Hedgehog Molecule (GLI1) Expression and Promotes Apoptosis in Metastatic Oral Squamous Cell Carcinoma Cells *International journal of molecular sciences* 2020-08-24 [PMID: 32846867] (WB, ICC/IF, Human)

Wang W, Song B, Anbarchian T et al. Smad2 and Smad3 Regulate Chondrocyte Proliferation and Differentiation in the Growth Plate. *PLoS Genet.* 2016-10-01 [PMID: 27741240] (IF/IHC, Mouse)

Martinez JA, Kobayashi M, Krishnan A et al. Intrinsic facilitation of adult peripheral nerve regeneration by the Sonic hedgehog morphogen *Exp. Neurol.* 2015-07-22 [PMID: 26210874] (IHC-Fr, Rat)

Kaminagakura E, Almeida JD, Carvalho YR et al. Keratocyst of the buccal mucosa: case report and immunohistochemical comparative study with sporadic intraosseous keratocystic odontogenic tumor. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2013-05-10 [PMID: 23669203] (IHC-P, Human)



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### **Products Related to NB200-118**

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NBL1-14924	Patched 1/PTCH Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **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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