

# Product Datasheet

## Hsp47 Antibody (M16.10A1)

### NBP1-97491-0.05mg

Unit Size: 0.05 mg

Store at -20C. Avoid freeze-thaw cycles.

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**Reviews: 2 Publications: 16**

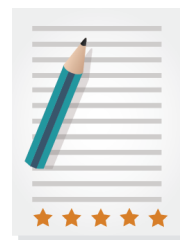
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**NBP1-97491-0.05mg**

Hsp47 Antibody (M16.10A1)

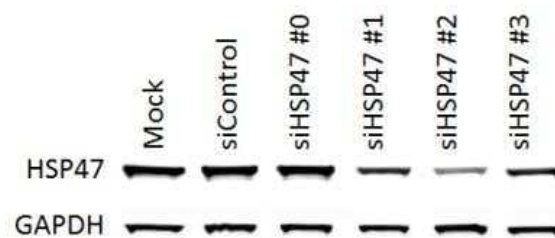
Product Information	
Unit Size	0.05 mg
Concentration	1.0 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	M16.10A1
Preservative	0.09% Sodium Azide
Isotype	IgG2b
Purity	Protein G purified
Buffer	PBS (pH 7.2) and 50% Glycerol

Product Description	
Host	Mouse
Gene ID	871
Gene Symbol	SERPINH1
Species	Human, Mouse, Rat, Porcine, Bovine, Canine, Chicken, Guinea Pig, Hamster, Monkey, Rabbit, Sheep
Reactivity Notes	Recognizes Sheep HSP47. Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions.
Immunogen	Native rat HSP47.

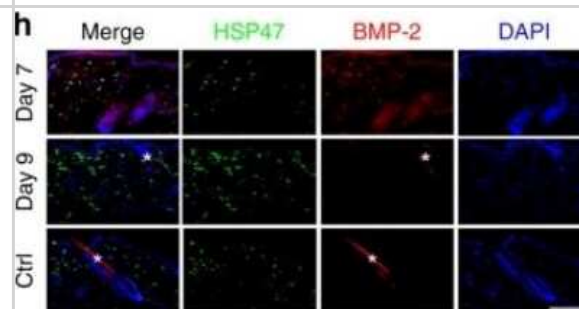
Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:100, Flow Cytometry 1:10-1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/Immunofluorescence 1:10-1:500, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:50, Immunohistochemistry-Frozen 1:10-1:500, Knockdown Validated
Application Notes	<p>This antibody is useful in IHC and detects a band of ~47kDa by WB. Immunoprecipitation, Flow Cytometry and ICC/IF were reported in scientific literature.</p> <p>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size.</p>

## Images

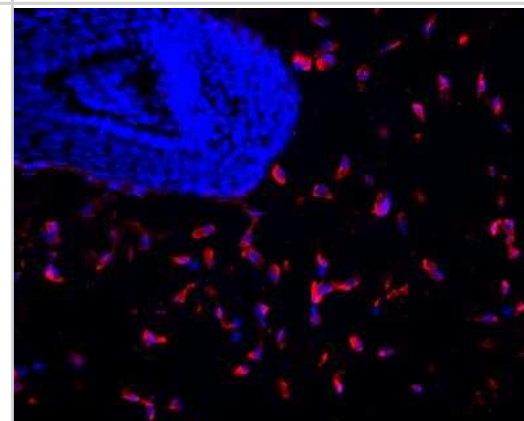
Western Blot: Hsp47 Antibody (M16.10A1) [NBP1-97491] - analysis of Hsp47 in NIH/3T3 cell lysate (20ug/lane) using anti-Hsp47 antibody. 5x10<sup>4</sup> NIH/3T3 cells were seeded in 6-well plate and transfected with 50nM of HSP47 siRNA the following day. Total protein was harvested 72h after transfection. Image from verified customer review.



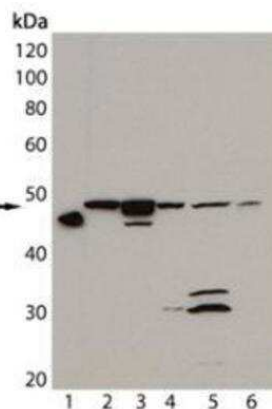
Immunocytochemistry/Immunofluorescence: Hsp47 Antibody (M16.10A1) [NBP1-97491] - WNT and BMP signaling pathways play crucial roles in regeneration. a-d Real-time PCR for WNT and BMP signals, including Wnt7b Dual immunostaining for K15 and phospho-Smad1/5 (pSmad1/5) revealed the nuclear staining of pSmad1/5 in hair stem cells at day 7 when skin was stretched (arrow). Scale bar=?50? um. h, i Immunostaining and confocal microscope. Image collected and cropped by CiteAb from the following publication (<http://www.nature.com/articles/s41467-019-09402-8>) licensed under a CC-BY license.



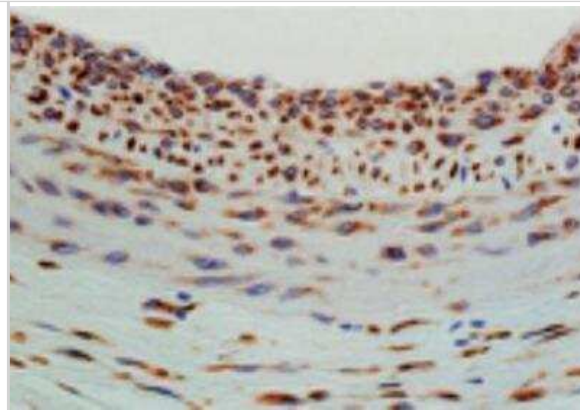
Immunohistochemistry-Frozen: Hsp47 Antibody (M16.10A1) [NBP1-97491] - Hsp47 antibody in guinea pig skin (subdermis). Image from verified customer review.



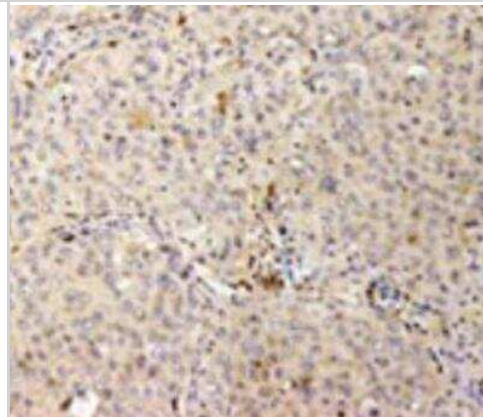
Western Blot: Hsp47 Antibody (M16.10A1) [NBP1-97491] - Analysis of HSP47, mAb (M16.10A1): Lane 1: Rat recombinant HSP47; Lane 2: Rat-2 (heat shocked); Lane 3: L929 (heat shocked); Lane 4: 3T3 (heat shocked); Lane 5: CHO (heat shocked); Lane 6: HeLa (heat shocked).



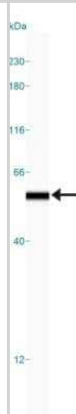
Immunohistochemistry-Paraffin: Hsp47 Antibody (M16.10A1) [NBP1-97491] - Analysis of paraffin-embedded tissue section of rat carotid artery 14 days after balloon-injury to the artery, stained using Hsp47 (Colligin) mAb (M16.10A1).



Immunohistochemistry-Paraffin: Hsp47 Antibody (M16.10A1) [NBP1-97491] - Analysis of human breast cancer tissue immunohistochemically stained using Hsp47 mAb (M16.10A1).



Simple Western: Hsp47 Antibody (M16.10A1) [NBP1-97491] - Simple Western lane view shows a specific band for Hsp47 in 0.5 mg/ml of NIH-3T3 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



## Publications

Sano M, Hirakawa S, Sasaki T et al. Role of Subcutaneous Adipose Tissues in the Pathophysiology of Secondary Lymphedema Lymphatic research and biology 2022-04-07 [PMID: 35394362] (IHC-P, Rat)

Sun X, Chen C, Liu H, Tang S High glucose induces HSP47 expression and promotes the secretion of inflammatory factors through the IRE1 alpha /XBP1/HIF-1 alpha pathway in retinal Muller cells Experimental and therapeutic medicine 2021-12-01 [PMID: 34676004] (IP, WB, Mouse)

Kim SH, Kim B, Kim JH Et al. L-myc Gene Expression in Canine Fetal Fibroblasts Promotes Self-Renewal Capacity but Not Tumor Formation Cells 2021-08-04 [PMID: 34440750] (ICC/IF)

Marom R, Burrage LC, Venditti R Et al. COPB2 loss of function causes a coatopathy with osteoporosis and developmental delay American journal of human genetics 2021-08-24 [PMID: 34450031]

Strack E, Rolfe PA, Fink AF et al. Identification of tumor associated macrophage subsets that are associated with breast cancer prognosis Clinical and translational medicine 2020-12-01 [PMID: 33377644] (ICC/IF, Human)

Khalil H, Kanisicak O, Vagnozzi RJ et al. Cell-specific ablation of Hsp47 defines the collagen-producing cells in the injured heart JCI Insight 2019-08-08 [PMID: 31393098] (WB, Mouse)

Chu, SY;Chou, CH;Huang, HD;Yen, MH;Hong, HC;Chao, PH;Wang, YH;Chen, PY;Nian, SX;Chen, YR;Liou, LY;Liu, YC;Chen, HM;Lin, FM;Chang, YT;Chen, CC;Lee, OK; Mechanical stretch induces hair regeneration through the alternative activation of macrophages Nat Commun 2019-04-03 [PMID: 30944305] (ICC/IF, Mouse)

A Furusu et al. Renoprotective Effect of Azelnidipine in Rats. Biol. Pharm. Bull. 31, 2237 . 2008-01-01 [PMID: 19043206] (IF/IHC, Rat)

D Li et al. Novel Adenoviral Gene Delivery System Targeted Against Head and Neck Cancer. Laryngoscope 118, 650 . 2008-01-01 [PMID: 18176343] (FLOW, ICC/IF, Human)

Y Ogawa et al. Role of heat shock protein 47, a collagen-binding chaperone, in lacrimal gland pathology in patients with cGVHD. Invest. Ophthalmol. Vis. Sci. 48, 1079 . 2007-01-01 [PMID: 17325149] (WB, IF/IHC, ICC/IF, Human)

L Wogensen et al. Localisation and phenotypical characterisation of collagen-producing cells in TGF-beta1-induced renal interstitial fibrosis. Histochem. Cell Biol. 119, 267 . 2003-01-01 [PMID: 12684813] (WB, IF/IHC, Mouse)

K Nagata et al. Prevalence of HSP47 antigen and autoantibodies to HSP47 in the sera of patients with mixed connective tissue disease. Biochem. Biophys. Res. Commun. 303, 413 . 2003-01-01 [PMID: 12659832] (Human)

More publications at <http://www.novusbio.com/NBP1-97491>



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### **Products Related to NBP1-97491-0.05mg**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP2-27231	Mouse IgG2b Isotype Control (MPC-11)
NBP1-88172PEP	Hsp47 Recombinant Protein Antigen

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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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