

Product Datasheet

beta-Actin Antibody - BSA Free NB100-56874

Unit Size: 0.1 mg

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

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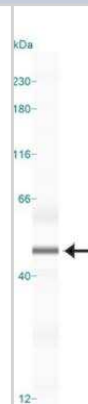
NB100-56874

beta-Actin Antibody - BSA Free

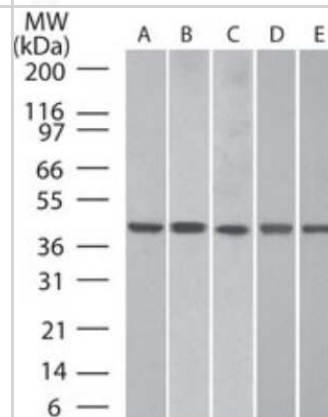
Product Information	
Unit Size	0.1 mg
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	42 kDa
Product Description	
Host	Rabbit
Gene ID	60
Gene Symbol	ACTB
Species	Human, Mouse, Rat, Porcine, Bovine, Chinese Hamster, Invertebrate
Reactivity Notes	Use in Rat reported in scientific literature (PMID:34443654). Invertebrate, Porcine, Bovine, and Chinese Hamster reactivity reported in scientific literature (PMID: 25240497, 26593451, 18650284, and 19291423 respectively). .
Immunogen	Amino acids 2-16 (CDDIAALVIDNGSG) of actin protein were used as the immunogen sequence for this beta-Actin Antibody.
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
Recommended Dilutions	Western Blot 0.25-1 ug/ml, Simple Western 1:12.5, Immunohistochemistry reported in scientific literature (PMID 27371029), Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 10 ug/mL, Knockdown Validated reported in scientific literature (PMID 31835509)
Application Notes	This antibody is not suitable for testing heart or muscle lysate. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 1.0 mg/mL, separated by Size, antibody dilution of 1:12.5, apparent MW was 49 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

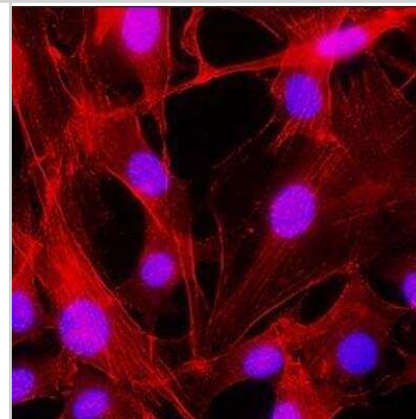
Simple Western: beta-Actin Antibody [NB100-56874] - Image shows a specific band for Beta Actin in 1.0 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



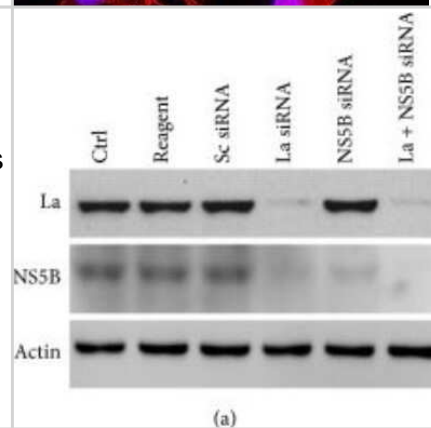
Western Blot: beta-Actin Antibody [NB100-56874] - Specific bands are seen in various cell lysates at the same molecular weight. A: human brain, B: mouse brain, C: rat brain, D: human lung, and E: human spleen tissue probed using beta actin antibody at 0.25 ug/mL.



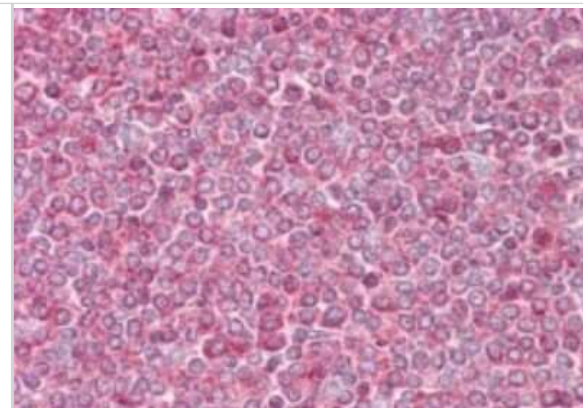
Immunocytochemistry/Immunofluorescence: beta-Actin Antibody [NB100-56874] - Actin was detected in NIH-3T3 cells fixed with methanol using rabbit anti-mouse Actin antibody (NB100-56874) at 1:100 dilution, overnight at 4C. Cells were stained using Northern Lights 557 conjugated anti-rabbit IgG secondary antibodies (NL004) and counterstained with DAPI.



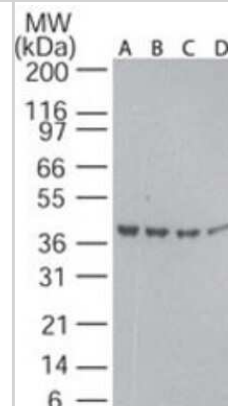
Western Blot: beta-Actin Antibody [NB100-56874] - Analysis of NS5B protein expression after transfecting NS5B and La autoantigen siRNAs: HCV-infected Huh-7. 5 cells were treated with siRNAs against La autoantigen and NS5B as mentioned above. After 48h total cellular protein was isolated and subjected to western blot analysis. The analysis indicates downregulation of La autoantigen (upper gel) and NS5B (middle gel) and β -actin (lower gel). Image collected and cropped by Citeab from the following publication (Combinations of siRNAs against La Autoantigen with NS5B or hVAP-A Have Additive Effect on Inhibition of HCV Replication. *Hepat Res Treat* (2016)) licensed under a CC-BY license.



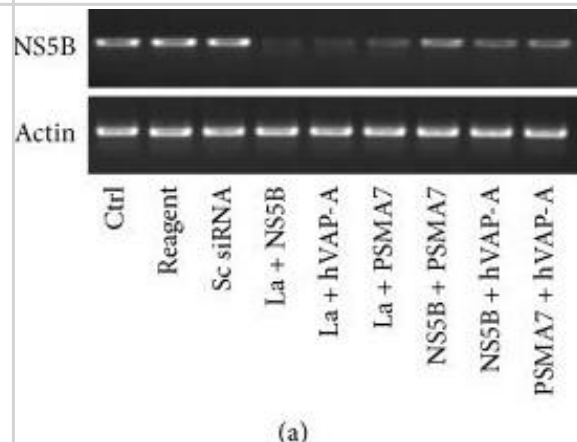
Immunohistochemistry-Paraffin: beta-Actin Antibody [NB100-56874] - Analysis of human spleen using antibody at 10 ug/mL.



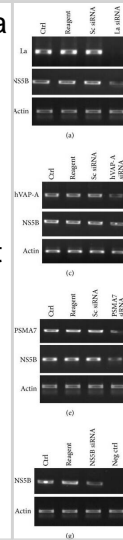
Western Blot: beta-Actin Antibody [NB100-56874] - Decreasing amounts of human ovary tissue lysate were probed using beta actin antibody at 0.25 ug/mL: A) 40 ug, B) 30 ug, C) 20 ug, D) 10 ug per lane.



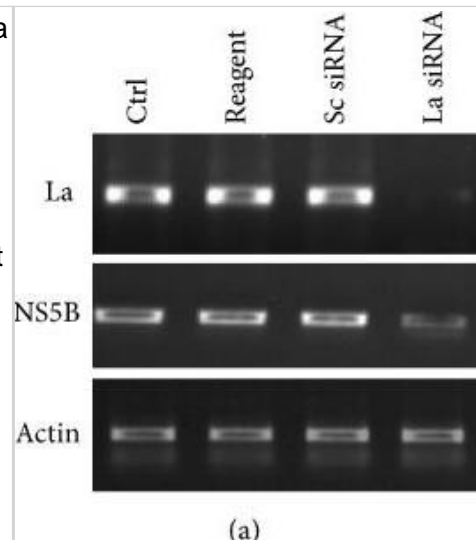
Western Blot: beta-Actin Antibody [NB100-56874] - Simultaneous downregulation of multiple genes more effectively inhibits HCV replication: Huh-7.5 cells in a similar experimental setup as mentioned in Figure 1 were transfected with following combinations of siRNAs: La autoantigen + NS5B, La autoantigen + hVAP-A, La autoantigen + PSMA7, NS5B + hVAP-A, NS5B + PSMA7, & PSMA7 + hVAP-A. Downregulation of viral replication were determined by RT-PCR as shown in (a). (b) represents densitometry analysis of HCV NS5B downregulation. The data represent mean \pm standard deviation. \square P value < 0.05 versus control was considered statistically significant. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27446609>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



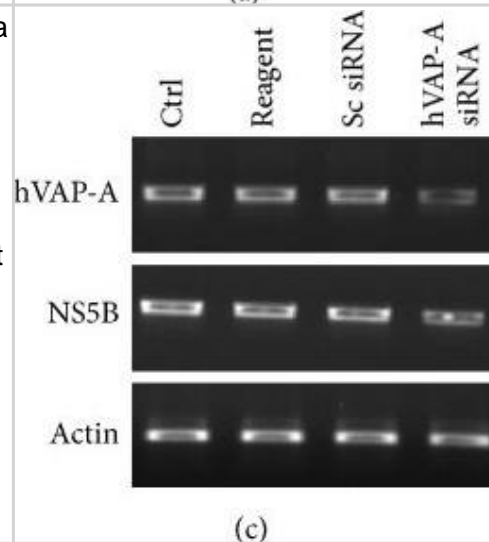
Western Blot: beta-Actin Antibody [NB100-56874] - Downregulation of La autoantigen, hVAP-A, PSMA7, & NS5B leads to reduction in viral replication: overnight grown Huh-7.5 cells were transfected with La autoantigen, hVAP-A, & PSMA7 siRNAs for 48 h. Cells were then infected with the virus & again transfected with same siRNAs. After incubation total RNA was isolated & subjected to RT-PCR. NS5B siRNA was transfected once only after cells were infected. (a), (c), (e), & (g) represent RT-PCR results for target genes & NS5B gene upon treatment with La autoantigen, hVAP-A, PSMA7, & NS5B siRNAs, respectively. Densitometric analysis of (a), (c), (e), & (g) images is expressed in percentage in (b), (d), (f), & (h), respectively. The data represent mean \pm standard deviation. \square P value < 0.05 versus control considered statistically significant. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/27446609>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



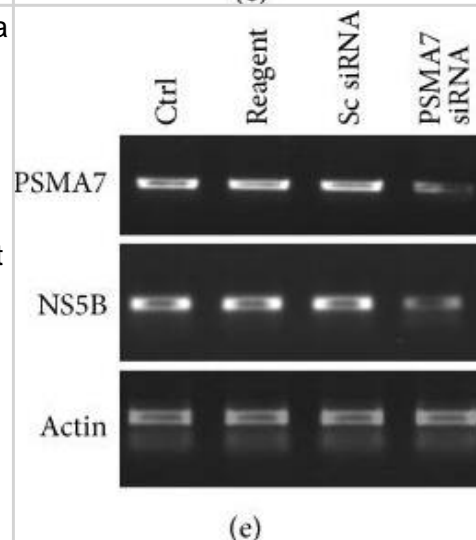
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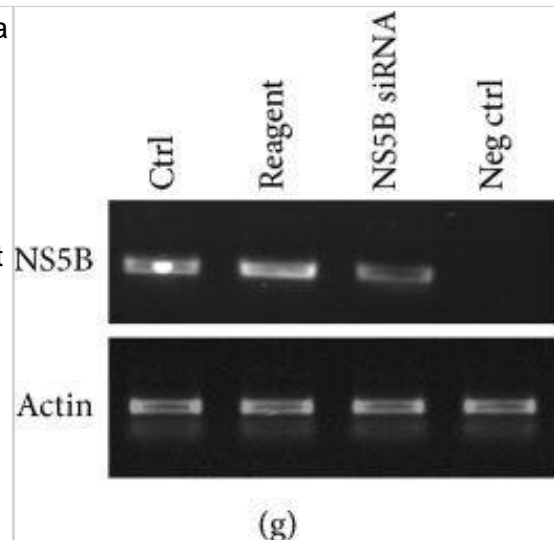
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Publications

Wang W, Liu Z, Jing B et al. 4,8-dicarboxyl-8,9-iridoid-1-glycoside Promotes Neural Stem Cell Differentiation Through MeCP2 Dose-response : a publication of International Hormesis Society 2022-08-03 [PMID: 35958275] (WB, Rat)

Chandra K, Roy Chowdhury A, Chatterjee R, Chakravorty D GH18 family glycoside hydrolase Chitinase A of Salmonella enhances virulence by facilitating invasion and modulating host immune responses PLoS pathogens 2022-04-01 [PMID: 35482710] (WB, C. elegans)

Mohamed RA, Abdallah DM, El-Brairy AI Et al. Palonosetron/Methyllycaconitine Deactivate Hippocampal Microglia 1, Inflammasome Assembly and Pyroptosis to Enhance Cognition in a Novel Model of Neuroinflammation Molecules 2021-08-27 [PMID: 34443654] (WB, Rat)

Details:

Citation using the HRP version of this antibody.

Tomita K, Nagasawa T, Kuwahara Y Et al. MiR-7-5p Is Involved in Ferroptosis Signaling and Radioresistance Thru the Generation of ROS in Radioresistant HeLa and SAS Cell Lines International journal of molecular sciences 2021-08-02 [PMID: 34361070] (WB, Human)

Takashi Y, Tomita K, Kuwahara Y et al. Mitochondrial dysfunction promotes aquaporin expression that controls hydrogen peroxide permeability and ferroptosis Free Radic Biol Med 2020-10-02 [PMID: 33017631] (WB, Human)

Sato S, Kikuchi T, Nishimura Y et al. Generation of mouse iPS cells using an inducible expression of transgenes via the cumate gene-switch Anal. Biochem. 2020-04-22 [PMID: 32333903] (WB, Mouse)

Wang L, Zhang S, Cheng G et al. MiR-145 reduces the activity of PI3K/Akt and MAPK signaling pathways and inhibits adipogenesis in bovine preadipocytes Genomics 2020-03-03 [PMID: 32135297] (WB)

Uemasu K, Tanabe N, Tanimura K et Al. Serine Protease Imbalance in the Small Airways and Development of Centrilobular Emphysema in COPD Am. J. Respir. Cell Mol. Biol. 2020-02-26 [PMID: 32101459] (Mouse)

Wang L, Zhang S, Zhang W et Al. miR-424 Promotes Bovine Adipogenesis Through an Unconventional Post-Transcriptional Regulation of STK11 Front Genet 2020-03-04 [PMID: 32194625] (WB, Bovine)

Ghezzi C, Wong A, Chen BY et al. A high-throughput screen identifies that CDK7 activates glucose consumption in lung cancer cells Nat Commun 2019-11-29 [PMID: 31784510] (WB, Human)

Su X, Wang Y, Li A Neudesin Neurotrophic Factor Promotes Bovine Preadipocyte Differentiation and Inhibits Myoblast Myogenesis Animals (Basel) 2019-12-10 [PMID: 31835509] (WB, KD, Bovine)

Huang YM, Cheng CH, Pan SL et al. Gene Expression Signature-Based Approach Identifies Antifungal Drug Ciclopirox As a Novel Inhibitor of HMGA2 in Colorectal Cancer Biomolecules 2019-11-02 [PMID: 31684108] (WB, Human)

More publications at <http://www.novusbio.com/NB100-56874>



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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NB600-503PEP	beta-Actin Antibody Blocking Peptide

Limitations

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