

Product Datasheet

SIRT6 Antibody NB100-2522

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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NB100-2522**SIRT6 Antibody**

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Target Molecular Weight	37 kDa

Product Description	
Host	Rabbit
Gene ID	51548
Gene Symbol	SIRT6
Species	Human, Mouse, Rat
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 25288139) Immunogen sequence has 78% homology to human. Human reactivity reported in scientific literature (PMID: 25660418)
Immunogen	A synthetic peptide made to a C-terminal region of the mouse SIRT6 protein (within residues 250-334). [Swiss-Prot P59941]

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000-1:3000, Flow Cytometry, Immunohistochemistry 1:300, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin 1:300, Immunohistochemistry-Frozen
Application Notes	This SIRT6 antibody is useful for Western blot and Immunohistochemistry paraffin embedded sections. In Western blot a band is seen at ~37 kDa representing SIRT6, and a non-specific higher MW band can be seen at ~61 kDa. This antibody does not appear to detect the human protein in Western blot. In IHC-P, staining was observed in the nucleus of mouse testis. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 23899523) Use in Immunohistochemistry-Frozen reported in scientific literature (PMID 25366464) Use in Immunoprecipitation reported in scientific literature (PMID 25288139) 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.



Publications

Wang, L, Guo, W Et al. Aberrant SIRT6 expression contributes to melanoma growth: Role of the autophagy paradox and IGF-AKT signaling. *Autophagy* 2017-12-08 [PMID: 29215322] (WB, Human)

Zhong, X, Huang, M Et al. SIRT6 Protects Against Liver Fibrosis by Deacetylation and Suppression of SMAD3 in Hepatic Stellate Cells. *Cell Mol Gastroenterol Hepatol* 2020-04-20 [PMID: 32305562] (IF/IHC, Mouse)

Kurabayashi A, Iwashita W, Tanaka C et al. Murine remote ischemic preconditioning suppresses diabetic ketoacidosis by enhancing glycolysis and entry into tricarboxylic acid cycle in the liver *Life Sci.* 2020-05-05 [PMID: 32387415] (WB, Mouse)

Meng F, Qian M, Peng B et al. A synergistic action of sirtuins directly recognizes DNA breaks and potentiates DNA damage response and repair *bioRxiv* 2020-01-01 (WB, KD, Human)

Zhou HZ, Zeng HQ, Yuan D et al. NQO1 potentiates apoptosis evasion and upregulates XIAP via inhibiting proteasome-mediated degradation SIRT6 in hepatocellular carcinoma *Cell Commun. Signal* 2019-12-16 [PMID: 31842909] (WB, Human)

Zhang L, Bai L, Ren Q et al. Protective effects of SIRT6 against lipopolysaccharide (LPS) are mediated by deacetylation of Ku70. *Mol. Immunol.* 2018-07-19 [PMID: 30032073] (WB, Human)

Xia YQ, Hua RJ, Juan C et al. SIRT6 Depletion Sensitizes Human Hepatoma Cells to Chemotherapeutics by Downregulating MDR1 Expression. *Front Pharmacol.* 2018-03-06 [PMID: 29563873] (IP, Human)

Tao NN, Ren JH, Tang H et al. Deacetylation of Ku70 by SIRT6 attenuates Bax-mediated apoptosis in hepatocellular carcinoma. *Biochem. Biophys. Res. Commun.* 2017-02-23 [PMID: 28238784] (WB)

Ran LK, Chen Y, Zhang ZZ et al. SIRT6 Overexpression Potentiates Apoptosis Evasion in Hepatocellular Carcinoma via BCL2-Associated X Protein-Dependent Apoptotic Pathway. *Clin Cancer Res* 2016-07-01 [PMID: 26861461]

Fukuda T, Wada-Hiraike O, Oda K et al. Putative tumor suppression function of SIRT6 in endometrial cancer *FEBS Lett.* 2015-08-04 [PMID: 26183563] (WB, Human)

Oikawa S, Mano A, Takahashi R, Kakinuma Y. Remote ischemic preconditioning with a specialized protocol activates the non-neuronal cardiac cholinergic system and increases ATP content in the heart *Int. Immunopharmacol.* 2015-06-11 [PMID: 26072685] (WB, Mouse)

Thirumurthi Umadevi, Shen Jia, Xia Weiya et al. MDM2-mediated degradation of SIRT6 phosphorylated by AKT1 promotes tumorigenesis and trastuzumab resistance in breast cancer. *Sci Signal.* 2014-07-29 [PMID: 25074979] (IF/IHC)

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Procedures

Western Blot Protocol for SIRT6 Antibody (NB100-2522)

Western Blot Protocol

1. Perform SDS-PAGE (4-12%, Bis-Tris) on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% non-fat dry milk + 1% BSA in TBS, overnight at 4 degrees Celsius.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-SIRT6 primary antibody (NB 100-2522) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions (Pierce's ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





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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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