Product Datasheet

SIRT6 Antibody
NB100-2522

Unit Size: 0.1 ml
Store at 4C. Do not freeze.

Reviews: 2  Publications: 14

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Updated 1/21/2020 v.20.1

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# SIRT6 Antibody

## Product Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>0.1 ml</td>
</tr>
<tr>
<td>Concentration</td>
<td>1.0 mg/ml</td>
</tr>
<tr>
<td>Storage</td>
<td>Store at 4C. Do not freeze.</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
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<tr>
<td>Preservative</td>
<td>0.1% Sodium Azide</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Buffer</td>
<td>Tris-Citrate/Phosphate (pH 7.0 - 8.0)</td>
</tr>
<tr>
<td>Target Molecular Weight</td>
<td>37 kDa</td>
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</table>

## 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

### 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.
Western Blot: SIRT6 Antibody [NB100-2522] - WB analysis of SIRT6 in NIH/3T3 cell lysate.

Immunocytochemistry/Immunofluorescence: SIRT6 Antibody [NB100-2522] - NIH3T3 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.5% Triton-X100. The cells were incubated with anti-SIRT6 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.

Immunohistochemistry: SIRT6 Antibody [NB100-2522] - SIRT6 antibody was tested in mouse testis using DAB with hematoxylin counterstain.

Flow Cytometry: SIRT6 Antibody [NB100-2522] - An intracellular stain was performed on U937 cells with NB100-2522AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Date</th>
<th>PMID</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhang L, Bai L, Ren Q et al.</td>
<td>Protective effects of SIRT6 against lipopolysaccharide (LPS) are mediated by deacetylation of Ku70.</td>
<td>Mol. Immunol.</td>
<td>Jul 19 2018 12:00AM</td>
<td>30032073</td>
<td>(WB, Human)</td>
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<td>Xia YQ, Hua RJ, Juan C et al.</td>
<td>SIRT6 Depletion Sensitizes Human Hepatoma Cells to Chemotherapeutics by Downregulating MDR1 Expression.</td>
<td>Front Pharmacol.</td>
<td>Mar 6 2018 12:00AM</td>
<td>29563873</td>
<td>(IP, Human)</td>
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<tr>
<td>Ran LK, Chen Y, Zhang ZZ et al.</td>
<td>SIRT6 Overexpression Potentiates Apoptosis Evasion in Hepatocellular Carcinoma via BCL2-Associated X Protein-Dependent Apoptotic Pathway.</td>
<td>Clin Cancer Res</td>
<td>2016 Jul 1</td>
<td>26861461</td>
<td></td>
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<tr>
<td>Oikawa S, Mano A, Takahashi R, Kakinuma Y.</td>
<td>Remote ischemic preconditioning with a specialized protocol activates the non-neuronal cardiac cholinergic system and increases ATP content in the heart</td>
<td>Int. Immunopharmacol.</td>
<td>Jun 11 2015</td>
<td>26072685</td>
<td>(WB, Mouse)</td>
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<td>Zwaans BMM.</td>
<td>EXPLORING THE ROLES OF THE HISTONE DEACETYLASE AND LONGEVITY FACTOR SIRT6 IN CANCER</td>
<td>Thesis.</td>
<td>2014</td>
<td></td>
<td></td>
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<td>Orellana ME, Quezada C, Maloney SC et al.</td>
<td>Expression of SIRT2 and SIRT6 in Retinoblastoma</td>
<td>Ophthalmic Res.</td>
<td>Feb 09 2015</td>
<td>25660418</td>
<td>(IHC-P, Human, Mouse)</td>
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<td>Lee OH, Kim J, Kim JM et al.</td>
<td>Decreased expression of sirtuin 6 is associated with release of high mobility group box-1 after cerebral ischemia.</td>
<td>Biochem Biophys Res Commun</td>
<td>Jul 27 2013</td>
<td>23899523</td>
<td>(ICC/IF, Rat)</td>
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</table>

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 dH\textsubscript{2}O 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 dH\textsubscript{2}O 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 dH\textsubscript{2}O 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.
**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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<th>Products Related to NB100-2522</th>
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<tr>
<td>NB800-PC10</td>
<td>MEF Whole Cell Lysate</td>
</tr>
<tr>
<td>NB100-2522PEP</td>
<td>SIRT6 Blocking Peptide</td>
</tr>
<tr>
<td>HAF008</td>
<td>Goat anti-Rabbit IgG Secondary Antibody [HRP (Horseradish Peroxidase)]</td>
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<tr>
<td>NB7156</td>
<td>Goat anti-Rabbit IgG (H+L) Secondary Antibody</td>
</tr>
<tr>
<td>NBP2-24891</td>
<td>Rabbit IgG Isotype Control</td>
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</table>

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