

# Product Datasheet

## NAC1 Antibody (3) NB110-77345SS

Unit Size: 0.025 ml

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

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**NB110-77345SS****NAC1 Antibody (3)**

<b>Product Information</b>	
<b>Unit Size</b>	0.025 ml
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	3
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Protein G purified
<b>Buffer</b>	Tris-Glycine and 0.15M NaCl
<b>Target Molecular Weight</b>	57 kDa
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	112939
<b>Gene Symbol</b>	NACC1
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Human and rat. Mouse reactivity reported in scientific literature (PMID: 23922682)
<b>Immunogen</b>	Recombinant human Nac1 protein. [UniProt# Q96RE7]
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 0.3 ug/ml, Flow Cytometry 1 ug per million cells, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence 1:100 -1:500, Immunoprecipitation Assay dependent, Immunohistochemistry-Paraffin 1:100
<b>Application Notes</b>	This Nac1 antibody is useful for Western blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin, Immunoprecipitation and Flow Cytometry. In WB a band is seen at ~57 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.

## Publications

- Zhang Y, Dong S, Wang X et al. Mechanistic Insights of NAC1 Nuclear Export and Its Role in Ovarian Cancer Resistance to Docetaxel Research Square 2022-11-30 [PMID: 37019189] (ICC/IF, WB, Human)
- Xia Z, Xu G, Nie L et al. NAC1 Potentiates Cellular Antiviral Signaling by Bridging MAVS and TBK1 J. Immunol. 2019-06-24 [PMID: 31235549]
- Saneyoshi T, Matsuno H, Suzuki A et al. Identification of a small-molecule compound that inhibits homodimerization of oncogenic NAC1 protein and sensitizes cancer cells to anticancer agents J. Biol. Chem. 2019-05-17 [PMID: 31101655] (IHC-P, IP, WB, Mouse)
- Ren YJ, Wang XH, Ji C et al. Silencing of NAC1 Expression Induces Cancer Cells Oxidative Stress in Hypoxia and Potentiates the Therapeutic Activity of Elesclomol Front Pharmacol. 2017-11-07 [PMID: 29163184] (WB, Human)
- Nakayama K, Rahman M, Rahman MT. Nucleus accumbens-1/GADD45GIP1 axis mediates cisplatin resistance through cellular senescence in ovarian cancer. ONCOLOGY LETTERS. 2017-01-04 [PMID: 28599472] (IF/IHC, Human)
- Zhang Y, Ren YJ, Guo LC et al. Nucleus accumbens-associated protein-1 promotes glycolysis and survival of hypoxic tumor cells via the HDAC4-HIF-1a axis. Oncogene. 2017-03-20 [PMID: 28319066] (WB, Mouse)
- Korutla L, Furlong HA 4th, Mackler SA. NAC1, A POZ/BTB protein interacts with Parkin and may contribute to Parkinson's disease. Neuroscience. 2013-11-11 [PMID: 24231739] (WB, ICC/IF)
- Yap KL, Sysa-Shah P, Bolon B et al. Loss of NAC1 Expression Is Associated with Defective Bony Patterning in the Murine Vertebral Axis. PLoS One 2013-07-26 [PMID: 23922682] (IHC-P, Mouse)
- Wu PH, Hung SH, Ren T et al. Cell cycle-dependent alteration in NAC1 nuclear body dynamics and morphology Phys Biol 2011-02-01 [PMID: 21301057]
- Rahman MT, Nakayama K, Ishikawa M et al. NAC1, a BTB/POZ Protein Overexpressed in Uterine Sarcomas Anticancer Res 2012-09-01 [PMID: 22993327]
- Scofield M, Korutla L, Jackson TG et al. NAC1, a POZ/BTB protein binds to TDP-43 and has a potential role in Amyotrophic Lateral Sclerosis Neuroscience 2012-09-25 [PMID: 23022214] (ICC/IF, Rat)
- Shih leM, Nakayama K, Wu G, Nakayama N, Zhang J, Wang TL. Amplification of the ch19p132 .NACC1 locus in ovarian high-grade serous carcinoma. Mod Pathol;24(5):638-45. 2011-05-01 [PMID: 21240255] (IF/IHC, Human)
- More publications at <http://www.novusbio.com/NB110-77345>



## Procedures

### Western Blot Protocol for Nac1 Antibody (NB110-77345)

#### Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 20 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<sub>2</sub>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% NFD<sub>M</sub> + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH<sub>2</sub>O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-NAC1 primary antibody (NB 110-77345) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH<sub>2</sub>O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted mouse-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers 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 manufacturers instructions (Pierce 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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