# **Product Datasheet**

# SERCA2 ATPase Antibody - BSA Free NB100-237

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**Publications: 15** 

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## NB100-237

SERCA2 ATPase Antibody - BSA Free

SERCA2 ATPase Antibody - BSA Free	
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)
Product Description	
Description	Novus Biologicals Rabbit SERCA2 ATPase Antibody - BSA Free (NB100-237) is a polyclonal antibody validated for use in WB, ICC/IF, IP and ChIP. Anti-SERCA2 ATPase Antibody: Cited in 14 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	488
Gene Symbol	ATP2A2
Species	Human, Mouse, Rat, Chicken
Reactivity Notes	Use in Chicken reported in scientific literature (PMID:35024244) Cat (100%). Mouse reactivity reported in scientific literature (PMID:23516438). Rat reactivity reported in scientific literature (PMID: 25513985)
Immunogen	The immunogen recognized by this antibody maps to a region between residue 475 and 525 of human ATPase, Ca++ transporter, cardiac muscle, slow twitch 2 using the numbering given in entry NP_733765.1 (GenelD 488).
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP)
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 2 - 10 ug/mg lysate, Chromatin Immunoprecipitation (ChIP) 1:10-1:500
Application Notes	This antibody can be used for WB, where a band is seen around 110 kDa. Use in Immunoprecipitation reported in scientific literature (PMID 24284412) Use in chromatin immunoprecipitation reported in scientific literature (PMID 24284412). Use in ICC/IF reported in scientific literature (PMID: 22045735).



#### **Images**

Western Blot: SERCA2 ATPase Antibody [NB100-237] - Representative Western blot analysis showing SERCA2 bands in HL-1 cells exposed to increasing LDL concentrations (0, 50, 100 and 200 ug/mL) (A) or to similar dose (500 ug/ml) of LDL or HDL (B) for 24 hours. HL-1 cells incubated in absence of LDL. Image collected and cropped by CiteAb from the following publication

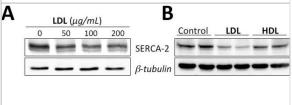
(https://pubmed.ncbi.nlm.nih.gov/23516438) licensed under a CC-BY license.



Western Blot: SERCA2 ATPase Antibody [NB100-237] - Detection of human and mouse SERCA2 by western blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, and mouse NIH3T3 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-SERCA2 antibody NB100-237 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



Western Blot: SERCA2 ATPase Antibody [NB100-237] - LDL reduces SERCA expression & SR calcium loading. Representative Western blot analysis showing SERCA2 bands in HL-1 cells exposed to increasing LDL concentrations (0, 50, 100 & 200 µg/mL) (A) or to similar dose (500 µg/ml) of LDL or HDL (B) for 24 hours. The bar graph below shows SERCA2 band quantification. Unchanged levels of β-tubulin are shown as loading control. Results are mean±SEM of three independent experiments performed in duplicate. \*P<0.05 versus. HL-1 cells incubated in absence of LDL. C Calcium images acquired at rest before (CON) & during a rapid caffeine application. D Representative calcium transients recorded in cultures incubated without lipoproteins (CON), with 500 μg/ml LDL or with 500 μg/ml HDL. The lower panel shows the corresponding time integrals of the calcium transients. E summary of the effect of LDL & HDL on the time integral of the caffeine induced calcium transient. \*P<0.05 vs. cells incubated with LDL Image collected & cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0058128), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



#### **Publications**

Anand Mohan Prasad, Giuseppe Inesi Silencing calcineurin A subunit reduces SERCA2 expression in cardiac myocytes American Journal of Physiology - Heart and Circulatory Physiology 2012-01-01 [PMID: 21057045]

Cai B, Ma M, Zhang J et al. LncEDCH1 improves mitochondrial function to reduce muscle atrophy by interacting with SERCA2 Molecular Therapy - Nucleic Acids 2022-03-01 [PMID: 35024244] (RIP, WB, Chicken)

Nensa FM. Interaktomstudie zum Alzheimer - relevanten Adapterpro tein FE65 -Durchfuhrung eines Pulldown - Assays mit rekombinant hergestelltem Protein und humanem Hirngewebe Thesis 2016-01-01 (WB, Human)

Dunay GA, Paragi P, Sara L et al. Depressed calcium cycling contributes to lower ischemia tolerance in hearts of estrogen-deficient rats. Menopause. 2014-12-15 [PMID: 25513985] (WB, Rat)

Nensa FM, Neumann MH, Schrotter A et al. Amyloid Beta A4 Precursor Protein-binding Family B Member 1 (FE65) Interactomics Revealed Synaptic Vesicle Glycoprotein 2A (SV2A) and Sarcoplasmic/Endoplasmic Reticulum Calcium ATPase 2 (SERCA2) as New Binding Proteins in the Human Brain. Mol Cell Proteomics 2014-02-01 [PMID: 24284412] (IP, Chemotaxis, WB, Human)

Wang Y, Bruce AT, Tu C et al. Protein aggregation of SERCA2 mutants associated with Darier disease elicits ER stress and apoptosis in keratinocytes. J Cell Sci. 2011-11-01 [PMID: 22045735] (ICC/IF, Human)

Rich S, Pogoriler J, Husain AN et al. Long-term effects of epoprostenol on the pulmonary vasculature in idiopathic pulmonary arterial hypertension. Chest 2010-11-01 [PMID: 21051399]

Li Q, Hueckstaedt LK, Ren J et al. The protease inhibitor UCF-101 ameliorates streptozotocin-induced mouse cardiomyocyte contractile dysfunction in vitro: role of AMP-activated protein kinase. Exp Physiol 2009-09-01 [PMID: 19561140]

Song J, Zhang XQ, Wang J et al. Regulation of cardiac myocyte contractility by phospholemman: Na+/Ca2+ exchange versus Na+ -K+ -ATPase. Am J Physiol Heart Circ Physiol 2008-10-01 [PMID: 18708446]

Yang J, Pawlyk B, Wen XH et al. Mpp4 is required for proper localization of plasma membrane calcium ATPases and maintenance of calcium homeostasis at the rod photoreceptor synaptic terminals. Hum Mol Genet 2007-05-01 [PMID: 17341488]

Barriga M, Cal R, Cabello N et al. Low Density Lipoproteins Promote Unstable Calcium Handling Accompanied by Reduced SERCA2 and Connexin-40 Expression in Cardiomyocytes PLoS One 2013-01-01 [PMID: 23516438] (WB, Mouse)

Prasad AM, Inesi G. Effects of thapsigargin and phenylephrine on calcineurin and protein kinase C signaling functions in cardiac myocytes. Am J Physiol Cell Physiol. 2009-05-01 [PMID: 19244478]

More publications at <a href="http://www.novusbio.com/NB100-237">http://www.novusbio.com/NB100-237</a>





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## **Products Related to NB100-237**

NB820-59218 Human Heart Aorta Valve Whole Tissue Lysate (Adult Whole Normal)

HAF008 Goat anti-Rabbit IgG Secondary Antibody [HRP]

NB7160 Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]

NBP2-24891 Rabbit IgG Isotype Control

#### 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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