

Product Datasheet

Glucose 6 Phosphate Dehydrogenase Antibody - BSA Free NB100-236

Unit Size: 100 ul

Store at 4C. Do not freeze.

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Publications: 19

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NB100-236**Glucose 6 Phosphate Dehydrogenase Antibody - BSA Free**

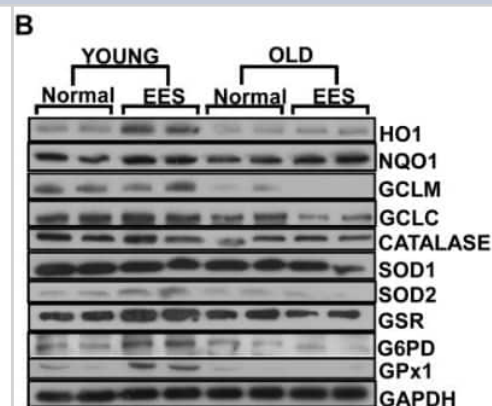
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description	
Description	Novus Biologicals Rabbit Glucose 6 Phosphate Dehydrogenase Antibody - BSA Free (NB100-236) is a polyclonal antibody validated for use in IHC and WB. Anti-Glucose 6 Phosphate Dehydrogenase Antibody: Cited in 18 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	2539
Gene Symbol	G6PD
Species	Human, Mouse
Marker	Cytosol Marker
Immunogen	The immunogen recognized by this antibody maps to a region between residues 50 and 100 of human Glucose-6-Phosphate Dehydrogenase using the numbering given in entry NP_000393.2 (GeneID 2539).

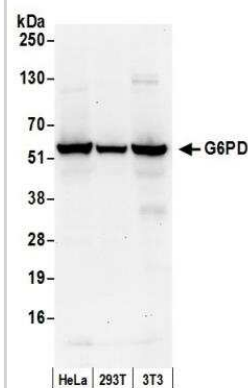
Product Application Details	
Applications	Western Blot, Immunoblotting, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:500-1:2500, Immunohistochemistry, Immunohistochemistry-Frozen 1:10-1:500, Immunoblotting
Application Notes	Use in IHC-Frozen reported in scientific literature (PMID: 17693254). Use in Immunoblotting reported in scientific literature (PMID 28515695).

Images

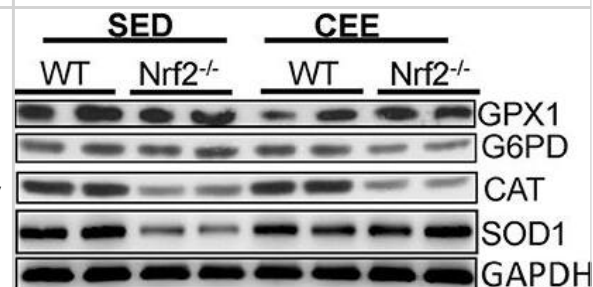
Glucose-6-Phosphate-Dehydrogenase-Antibody-Western-Blot-NB100-236-img0009.jpg



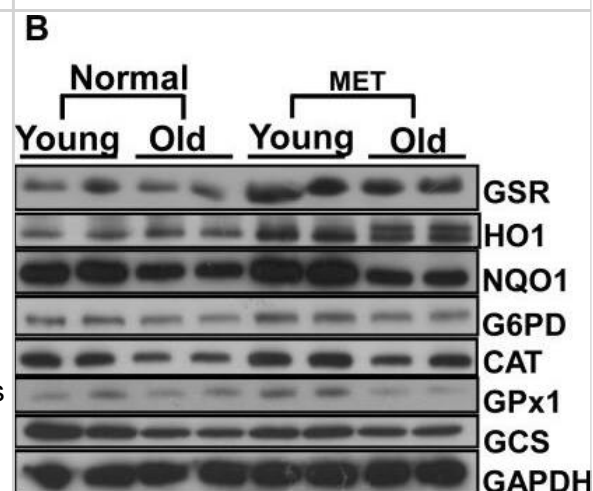
Western Blot: Glucose 6 Phosphate Dehydrogenase Antibody [NB100-236] - Detection of Human and Mouse G6PD by Western Blot. Samples: Whole cell lysate (50 ug) from HeLa, 293T, and mouse NIH3T3 cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-G6PD antibody NB100-236 used for WB at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



Western Blot: Glucose 6 Phosphate Dehydrogenase Antibody [NB100-236] - Dysregulation of Antioxidant proteins in response to chronic endurance exercise in aged *Nrf2*^{-/-} mice hearts. Antioxidant protein expression (GPX1, CAT, G6PD, & SOD1) were determined using immunoblotting with specific antibodies. The relative intensity signals were quantified using ImageJ software & normalized to GAPDH intensity & represented as histogram. Experiments were analyzed using one way ANOVA followed by Tukey multiple comparison tests & differences between the means were considered statistically significant if $P < 0.05$ (* vs. WT-SED, # vs. *Nrf2*^{-/-}-SED, \$ vs. WT CEE). Image collected & cropped by CiteAb from the following publication (<http://journal.frontiersin.org/article/10.3389/fphys.2017.00268/full>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: Glucose 6 Phosphate Dehydrogenase Antibody [NB100-236] - Effect of prolonged moderate exercise on *Nrf2*/ARE-Antioxidants in the aging heart. Representative immunoblots of cytosolic extracts from the hearts of young & old mice under basal conditions & following 6-weeks of moderate exercise training (MET). Protein blots were probed with respective antibodies as indicated. Individual lanes represent separate animals ($n=4-6$ /group). A. Analysis of nuclear *Nrf2* in young & old mice subjected to MET. In sedentary mice, *Nrf2* protein levels were decreased significantly in old when compared to young ($*p < 0.05$). Following MET, nuclear *Nrf2* levels were significantly increased in old mice to levels equivalent to those of young mice (#, $\$p < 0.05$ in MET vs. respective basal). (B) Densitometry analysis of respective protein signals were performed using Image-J & expressed relative to mean values of the sedentary-young group. Under basal conditions, a significant decrease in the protein levels of GSR, G6PD, NQO1, catalase, GPX1 & GCS were observed in the heart tissues of old when compared to young mice. Following 6-weeks of moderate exercise, most of the antioxidants were significantly ($*p < 0.05$) upregulated or stabilized in the aging heart. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0045697>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zhang N, Zhang Z, He R et al. GLAST-CreER(T2) mediated deletion of GDNF increases brain damage and exacerbates long-term stroke outcomes after focal ischemic stroke in mouse model *Glia* 2020-06-04 [PMID: 32497340]

Ouyang X, Wani W, Benavides G et al. Cathepsin D overexpression in the nervous system rescues lethality and A β 42 accumulation of cathepsin D systemic knockout in vivo *Acta Pharmaceutica Sinica B* 2023-07-01 (WB, Mouse)

Shanmugam G, Narasimhan M, Conley RL et al. Chronic Endurance Exercise Impairs Cardiac Structure and Function in Middle-Aged Mice with Impaired Nrf2 Signaling. *Front Physiol* 2017-05-18 [PMID: 28515695] (IB, Mouse)

Shanmugam G, Narasimhan M, Sakthivel R et al. A biphasic effect of TNF- α in regulation of the Keap1/Nrf2 pathway in cardiomyocytes *Redox Biol* 2016-06-27 [PMID: 27423013]

Rajasekaran NS, Connell P, Christians ES et al. Human alpha B-crystallin mutation causes oxido-reductive stress and protein aggregation cardiomyopathy in mice. *Cell* 2007-08-10 [PMID: 17693254] (IHC-Fr, Mouse)

Jeon SM, Chandel NS, Hay N et al. AMPK regulates NADPH homeostasis to promote tumour cell survival during energy stress. *Nature* 2012-05-01 [PMID: 22660331]

Spencer NY, Yan Z, Boudreau RL et al. Control of hepatic nuclear superoxide production by glucose 6-phosphate dehydrogenase and NADPH oxidase-4. *J Biol Chem* 2011-03-01 [PMID: 21212270]

Zhang Z, Liew CW, Handy DE et al. High glucose inhibits glucose-6-phosphate dehydrogenase, leading to increased oxidative stress and beta-cell apoptosis. *FASEB J* 2010-05-01 [PMID: 20032314]

Pan S, World CJ, Kovacs CJ et al. Glucose 6-phosphate dehydrogenase is regulated through c-Src-mediated tyrosine phosphorylation in endothelial cells. *Arterioscler Thromb Vasc Biol* 2009-06-01 [PMID: 19359662]

Iwashima F, Yoshimoto T, Minami I et al. Aldosterone induces superoxide generation via Rac1 activation in endothelial cells. *Endocrinology* 2008-03-01 [PMID: 18079208]

Funes JM, Quintero M, Henderson S et al. Transformation of human mesenchymal stem cells increases their dependency on oxidative phosphorylation for energy production. *Proc Natl Acad Sci U S A* 2007-04-01 [PMID: 17384149]

Matsui R, Xu S, Maiti KA et al. Glucose-6-phosphate dehydrogenase deficiency decreases vascular superoxide and atherosclerotic lesions in apolipoprotein E(-/-) mice. *Arterioscler Thromb Vasc Biol* 2006-04-01 [PMID: 16439706]

More publications at <http://www.novusbio.com/NB100-236>





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Products Related to NB100-236

NBL1-10899	Glucose 6 Phosphate Dehydrogenase Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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

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