

# Product Datasheet

## Troponin I Type 1 (slow skeletal) Antibody - BSA Free NBP1-56641

Unit Size: 100 ul

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

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**NBP1-56641**

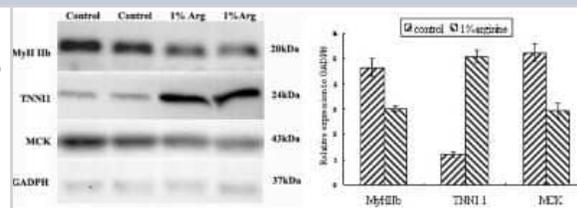
Troponin I Type 1 (slow skeletal) Antibody - BSA Free

Product Information	
Unit Size	100 ul
Concentration	0.5 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS, 2% Sucrose
Target Molecular Weight	22 kDa
Product Description	
Description	The addition of 50% glycerol is optional for those storing this antibody at -20C and not aliquoting smaller units. However, please note that glycerol may interrupt some downstream antibody applications and should be added with caution.
Host	Rabbit
Gene ID	7135
Gene Symbol	TNNI1
Species	Human, Mouse, Porcine
Reactivity Notes	Mouse reactivity reported in scientific literature (PMIDs: 23751911 and 23063798). Porcine reactivity reported in scientific literature (PMID: 25635834).
Immunogen	Synthetic peptides corresponding to Troponin I Type 1 (slow skeletal). The peptide sequence was selected from the N terminal of TNNI1 (NP_003272). Peptide sequence MPEVERKPKITASRKLKLLKSLMLAKAKECWEQEHEEREAEKVRILAERIP. The peptide sequence for this immunogen was taken from within the described region.
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1.0 ug/ml, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 4-8 ug/ml
Application Notes	Use in ICC/IF was reported in the scientific literature (PMID: 23751911).

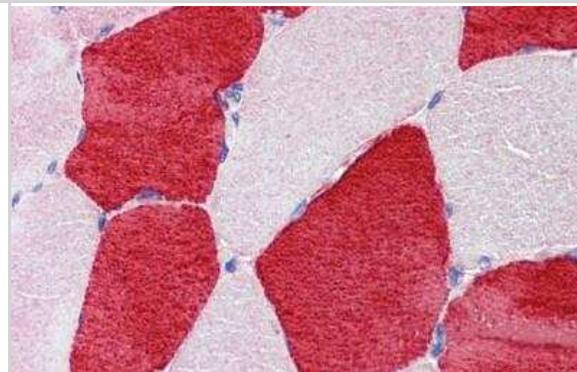


## Images

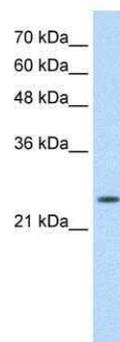
Western Blot: Troponin I Type 1 (slow skeletal) Antibody [NBP1-56641] - Western-blots for a selection of differentially-expressed proteins. MyH2b, Troponin I Type 1 (slow skeletal) (TNNI1) and MCK were used as target protein; GAPDH was used as a control. Total protein from control and arginine-supplemented pig samples was fractionated by SDS-PAGE, blotted and then detected with specific antibodies. Image collected and cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pone.0117294>), licensed under a CC-BY license.



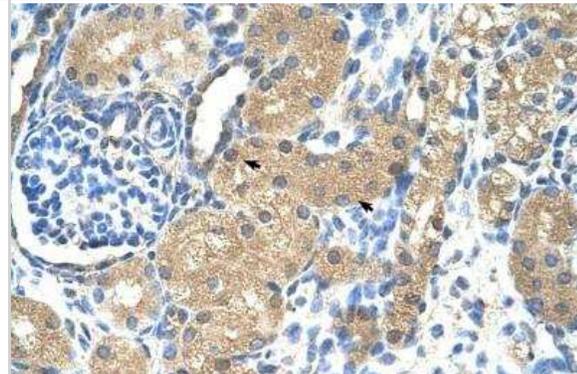
Immunohistochemistry-Paraffin: Troponin I Type 1 (slow skeletal) Antibody [NBP1-56641] - Human Skeletal Muscle, 5.0ug/ml.



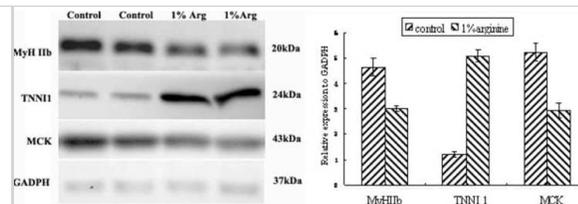
Western Blot: Troponin I Type 1 (slow skeletal) Antibody [NBP1-56641] - HepG2 cell lysate, Antibody Titration: 0.2-1 ug/ml



Immunohistochemistry-Paraffin: Troponin I Type 1 (slow skeletal) Antibody [NBP1-56641] - Human kidney Tissue, antibody concentration 4-8ug/ml. Cells with positive label: renal corpuscle cells (indicated with arrows) 400X magnification.



Western-blots for a selection of differentially-expressed proteins. MyH2b, TNNI1 and MCK were used as target protein; GAPDH was used as a control. A: Total protein from control and arginine-supplemented pig samples was fractionated by SDS-PAGE, blotted and then detected with specific antibodies; B: Semi-quantification of protein content computed using Image J software. Data are presented as the mean  $\pm$ SEM (n = 6).



## Publications

Yap L, Chong LY, Tan C et al. Pluripotent stem cell-derived committed cardiac progenitors remuscularize damaged ischemic hearts and improve their function in pigs npj Regenerative Medicine 2023-05-26 [PMID: 37236990] (Immunohistochemistry, In vivo assay)

Sun, Q, Peng, Y Et al. SEMA6D regulates perinatal cardiomyocyte proliferation and maturation in mice. Dev Biol 2019 -08-01 [PMID: 31042497] (WB, Mouse)

Teigen LE, Sundberg CW, Kelly LJ et al. Ca<sup>2+</sup> dependency of limb muscle fiber contractile mechanics in young and older adults Am. J. Physiol., Cell Physiol. 2020-06-01 [PMID: 32348175] (Human)

Go-sha-jinki-Gan (GJG), a traditional Japanese herbal medicine, protects against sarcopenia in senescence-accelerated mice Kishida Y, Kagawa S, Arimitsu J Phytomedicine [PMID: 25636865] (WB, Mouse)

Zhu W, Zhao M, Mattapally S et al. CCND2 Overexpression Enhances the Regenerative Potency of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes: Remuscularization of Injured Ventricle. Circ. Res. 2017-10-10 [PMID: 29018036] (Human)

Ma X, Zheng C, Hu Y et al. Dietary L-arginine supplementation affects the skeletal longissimus muscle proteome in finishing pigs PLoS ONE. 2015-01-31 [PMID: 25635834] (WB, Porcine)

### Details:

Troponin I Type 1 (slow skeletal) antibody used in WB application for the detection of TNNI1 protein on lysates of frozen muscle samples which were collected from control and arginine-supplemented pigs (Figure 2).

Chakraborty S, Sengupta A, Yutzey KE. Tbx20 promotes cardiomyocyte proliferation and persistence of fetal characteristics in adult mouse hearts. J Mol Cell Cardiol 2013-06-07 [PMID: 23751911] (IHC-P, ICC/IF, WB, Mouse)

Harmelink C, Peng Y, DeBenedittis P et al. Myocardial Mycn is essential for mouse ventricular wall morphogenesis. Dev Biol 2013-01-01 [PMID: 23063798] (WB, Mouse)

Ralli, S. Am. Heart J. 150 (6), 1220-1227. 2005-01-01 [PMID: 16338262]



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### **Products Related to NBP1-56641**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-22892	Recombinant Human Troponin I Type 1 (slow skeletal) His Protein

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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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