Product Datasheet

Titin Antibody - BSA Free
NBP1-88071

Unit Size: 0.1 ml

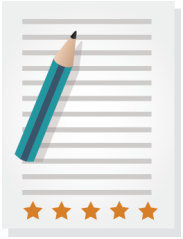
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Publications: 4

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-88071

Updated 9/9/2025 v.20.1



NBP1-88071

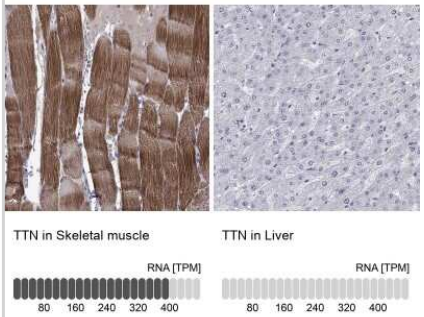
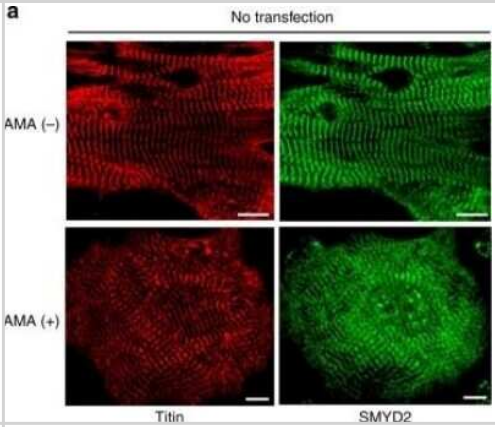
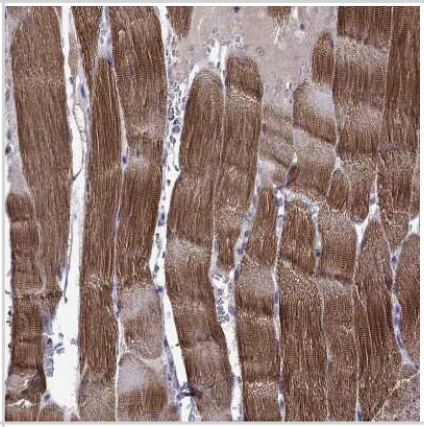
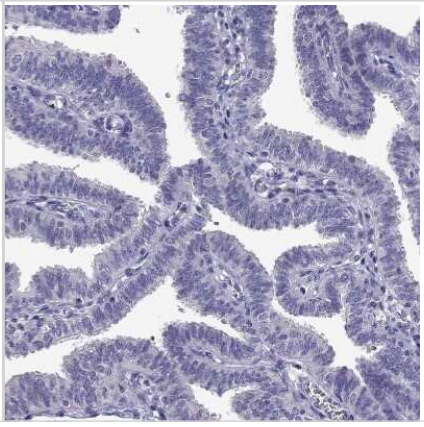
Titin Antibody - BSA Free

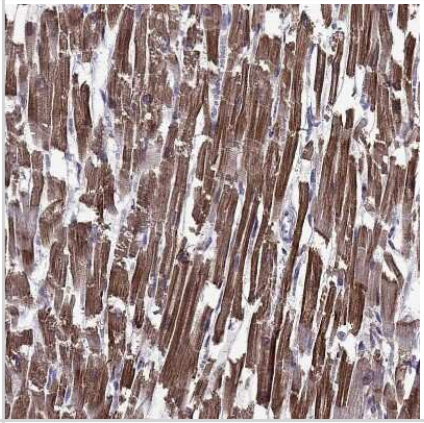
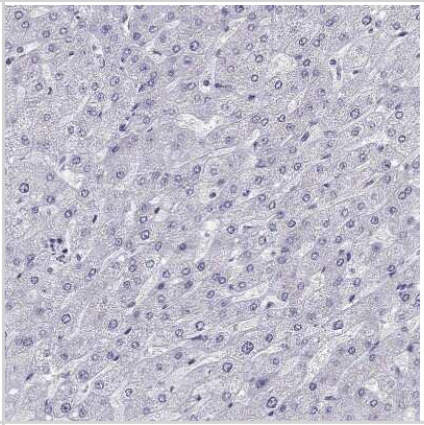
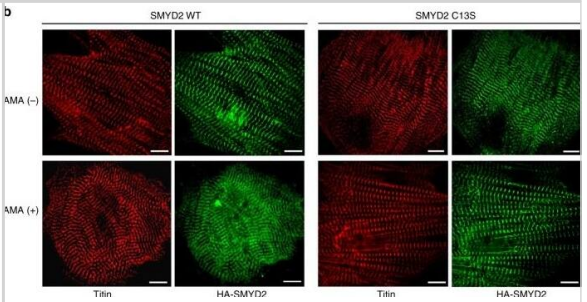
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Description	Novus Biologicals Rabbit Titin Antibody - BSA Free (NBP1-88071) is a polyclonal antibody validated for use in IHC and ICC/IF. Anti-Titin Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	7273
Gene Symbol	TTN
Species	Human, Rat
Reactivity Notes	Rat reactivity reported in (PMID:30337525).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: GTVSTSCYLAVQVSEEFEKETTAVTEKFTTEEKRFVESRDVVMTDTSLTEEQA GPGEPAAPYFITKPVVQKLVEGGSVVFGCQVGGNPKPHVYWKKSGVPLTTGY RYKVSYNKQTGECKLVISMTFADDAGEYT

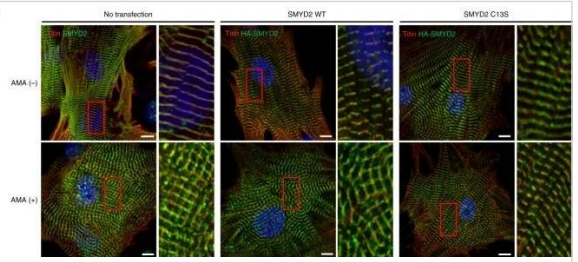
Product Application Details	
Applications	Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence Reported in scientific literature (PMID: 30337525), Immunohistochemistry-Paraffin 1:200 - 1:500
Application Notes	IHC-P,HIER pH6 retrieval is recommended.

Images

Immunohistochemistry-Paraffin: Titin Antibody [NBP1-88071] - Analysis in human skeletal muscle and liver tissues. Corresponding TTN RNA-seq data are presented for the same tissues.	
Immunocytochemistry/Immunofluorescence: Titin Antibody [NBP1-88071] - SMYD2 Cys13 glutathionylation or oxidation reduces myofibril integrity. Monitoring the myofibril alignment in rat neonatal cardiomyocytes upon incubation of AMA (2 ug/mL) for 12 h: no expression of SMYD2 WT. Immunostainings were done by using antibodies to SMYD2, HA (green), or titin (alpha-titin-NT, red). About 30 cells were photographed and examined for myofibril alignment or directionality by FiberFit software. 34 Images represent the major myofibril structure in individual conditions. Scale bars, 10 um. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/s41467-018-06786-x), licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: Titin Antibody [NBP1-88071] - Staining of human skeletal muscle shows strong cytoplasmic positivity in myocytes.	
Immunohistochemistry-Paraffin: Titin Antibody [NBP1-88071] - Staining of human fallopian tube shows no positivity in glandular cells as expected.	

Immunohistochemistry-Paraffin: Titin Antibody [NBP1-88071] - Staining of human heart muscle shows strong cytoplasmic positivity in cardiomyocytes.	
Immunohistochemistry-Paraffin: Titin Antibody [NBP1-88071] - Staining of human liver shows no positivity in hepatocytes as expected.	
Immunocytochemistry/ Immunofluorescence: Titin Antibody [NBP1-88071] - SMYD2 Cys13 glutathionylation or oxidation reduces myofibril integrity. a, b Monitoring the myofibril alignment in rat neonatal cardiomyocytes upon incubation of AMA (2 μg/mL) for 12 h: no expression (a) & ectopic expression of SMYD2 WT or C13S (b). Immunostainings were done by using antibodies to SMYD2, HA (green), or titin (α-titin-NT, red). About 30 cells were photographed & examined for myofibril alignment or directionality by FiberFit software.34 Images represent the major myofibril structure in individual conditions. Scale bars, 10 μm. c Analysis of myofibril alignment in cardiomyocytes. Individual cell images were analyzed by the FiberFit software to determine the fiber dispersion parameter (k) values that represent the degree of fiber alignment. High k values represent the aligned networks, whereas low k values represent the disordered networks. The median values with 95% CI are shown, n = 3 independent experiments. Difference is significant by one-way ANOVA, followed by Tukey's post-hoc test, *p < 0.05, **p < 0.01, ***p < 0.001, ****p < 0.0001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30337525), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Immunocytochemistry/ Immunofluorescence: Titin Antibody [NBP1-88071] - SMYD2 Cys13 glutathionylation induces dissociation of SMYD2 from N2A & Hsp90. a, b SMYD2 glutathionylation disrupts its interaction with Hsp90. Purified SMYD2-SH & SMYD2-SSG were incubated with GST-Hsp90 bound to glutathione beads, & eluted sample was analyzed (a). Hsp90 was co-immunoprecipitated with SMYD2 WT or C13S from HEK293 cells in response to AMA with glucose deprivation (b). c, d SMYD2 glutathionylation disrupts its interaction with N2A. Purified SMYD2-SH & SMYD2-SSG were incubated with GST-N2A bound to glutathione beads, & eluted sample was analyzed (c). FLAG-N2A was co-immunoprecipitated with SMYD2 WT or C13S in HEK293 cells in response to AMA with glucose deprivation (d). e SMYD2 subjected to glutathionylation decreases its binding with N2A. SMYD2 WT or C13S was pre-incubated with H_2O_2 in the absence or presence of glutathione for 15 min, then mixed with GST-N2A bound to glutathione beads for 1 h. Eluted samples were analyzed. f, g Colocalization of titin & SMYD2 decreases upon incubation of AMA in rat neonatal cardiomyocytes expressing SMYD2 WT versus C13S. Immunostainings of cardiomyocytes with antibodies to titin (α-titin-NT, red), HA, or SMYD2 (green) are shown with enlarged areas for details (the red boxes) (f). Pearson's correlation coefficients were calculated to determine colocalization of titin & SMYD2 (g). About 30 cells were analyzed in individual conditions. Images represent the major colocalization pattern in individual experiments. Scale bars, 10 μm. Data represent the mean ± SD, n = 3 independent experiments Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30337525), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Rodriguez Garcia M, Schmeckpeper J, Landim-Vieira M et al. Disruption of Z-Disc Function Promotes Mechanical Dysfunction in Human Myocardium: Evidence for a Dual Myofilament Modulatory Role by Alpha-Actinin 2 International journal of molecular sciences 2023-09-26 [PMID: 37834023] (IHC-Fr, Human)

Munkanatta Godage DNP, VanHecke GC, Samarasinghe kTG et al. SMYD2 glutathionylation contributes to degradation of sarcomeric proteins. Nat Commun. 2018-10-18 [PMID: 30337525] (ICC/IF, Rat)

Shin SH, Huang M, Kim SH, Choi JY. Differential Protein Expression in Congenital and Acquired Cholesteatomas. PLoS One 2015-01-01 [PMID: 26335306] (IF/IHC, Human)

Seki T, Yuasa S, Kusumoto D et al. Generation and Characterization of Functional Cardiomyocytes Derived from Human T Cell-Derived Induced Pluripotent Stem Cells. PLoS One 2014-01-01 [PMID: 24465630]

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NBP1-88071PEP	Titin Recombinant Protein Antigen
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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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