

Product Datasheet

TRPM2 Antibody - BSA Free

NB110-81601

Unit Size: 0.1 ml

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

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NB110-81601

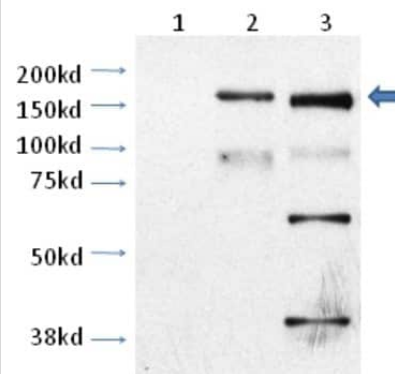
TRPM2 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
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
Target Molecular Weight	181 kDa
Product Description	
Description	Novus Biologicals Rabbit TRPM2 Antibody - BSA Free (NB110-81601) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-TRPM2 Antibody: Cited in 17 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	7226
Gene Symbol	TRPM2
Species	Mouse, Rat
Immunogen	Synthetic peptide made to a C-terminal portion of the rat TRPM2 protein (within residues 1430-1508). [Swiss-Prot# Q5G856]
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:500 - 1:1000, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Paraffin 1:200, Immunohistochemistry-Frozen
Application Notes	In Western blot a band is seen at ~181 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.

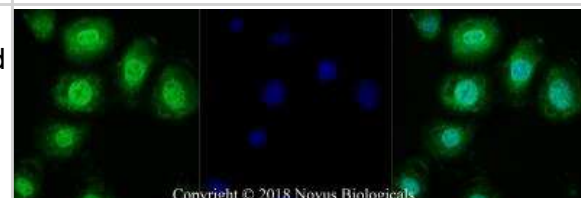


Images

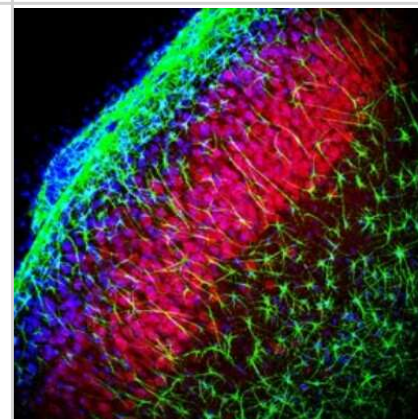
Western Blot: TRPM2 Antibody [NB110-81601] - Lane 1: CHO cells untransfected. Lane 2: CHO cell transfected with rat TRPM2 Lane 3: Mouse cortical neurons (cultured) Photo courtesy of Dr. Paco Herson, Oregon Health & Science University.



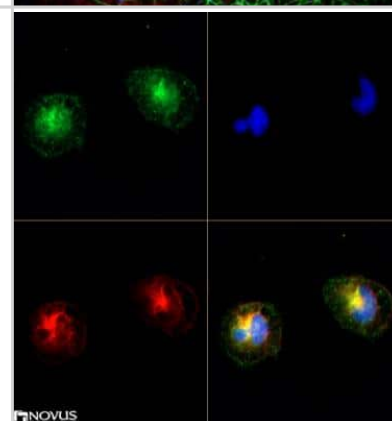
Immunocytochemistry/Immunofluorescence: TRPM2 Antibody [NB110-81601] - Neuro2a cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton X-100. The cells were incubated with anti-TRPM2 at 5 ug/mL overnight at 4C and detected with an anti-rabbit DyLight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunocytochemistry/Immunofluorescence: TRPM2 Antibody [NB110-81601] - Staining of rat hippocampus using NB110-81601. TRPM2 is stained red, GFAP is stained green and nuclei staining is blue. Photo courtesy of Dr. Ji-Zhong Bai, The University of Auckland, New Zealand.



Immunocytochemistry/Immunofluorescence: TRPM2 Antibody [NB110-81601] - TRPM2 antibody was tested in Neuro2A cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



Publications

Zong P, Feng J, Yue Z et al. TRPM2 deficiency in mice protects against atherosclerosis by inhibiting TRPM2-CD36 inflammatory axis in macrophages *Nature Cardiovascular Research* 2022-04-21 [PMID: 35445217] (Western Blot, Immunocytochemistry/ Immunofluorescence, Rat)

Ferreira AFF, Ulrich H, Feng ZP, Sun HS et Al. Neurodegeneration and glial morphological changes are both prevented by TRPM2 inhibition during the progression of a Parkinson's disease mouse model *Exp Neurol* 2024-04-22 [PMID: 38649091]

Ferreira AFF, Singulani MP, Ulrich H, Feng ZP et Al. Inhibition of TRPM2 by AG490 Is Neuroprotective in a Parkinson's Disease Animal Model *Mol Neurobiol* 2022-01-09 [PMID: 35000153]

Sun, K;Zhang, X;Hou, L;Lu, F;Liu, H;Zheng, Z;Guo, Z;Xu, J;Ruan, Z;Hou, Y;He, J;Guo, F;Yang, K; TRPM2-mediated feed-forward loop promotes chondrocyte damage in osteoarthritis via calcium-cGAS-STING-NF- κ B pathway *Journal of advanced research* 2024-11-04 [PMID: 39505144]

Zong P, Feng J, Legere N et Al. TRPM2 enhances ischemic excitotoxicity by associating with PKC β *Cell Rep* 2024-03-21 [PMID: 38308841]

Chiaki Yoshikawa, Hiroharu Maegawa, Nayuka Usami, Hiroshi Hanamoto, Chiho Kudo, Hitoshi Niwa Antagonist of transient receptor potential melastatin 2 suppresses mechanical hypersensitivity and activation of microglia induced by infraorbital nerve ligation in male rats. *Biochemical and biophysical research communications* 2023-07-18 [PMID: 37295356]

Rah SY, Joe Y, Park J et al. CD38/ADP-ribose/TRPM2-mediated nuclear Ca²⁺ signaling is essential for hepatic gluconeogenesis in fasting and diabetes *Experimental & molecular medicine* 2023-07-01 [PMID: 37394593] (ICC/IF, Mouse)

Zong P, Feng J, Yue Z et al. Functional coupling of TRPM2 and extrasynaptic NMDARs exacerbates excitotoxicity in ischemic brain injury *Neuron* [PMID: 35421327]

Wang W, Yang Q, Zhou C et al. Transcriptomic changes in the hypothalamus of ovariectomized mice: Data from RNA-seq analysis *Annals of anatomy = Anatomischer Anzeiger : official organ of the Anatomische Gesellschaft* 2022-01-12 [PMID: 35032566] (IF/IHC, Mouse)

Yee AG, Freestone PS, Bai JZ, Lipski J Paradoxical lower sensitivity of Locus Coeruleus than Substantia Nigra pars compacta neurons to acute actions of rotenone. *Exp. Neurol.* 2016-10-19 [PMID: 27771354] (IF/IHC)

Rah SY, Kwak JY, Chung YJ, Kim UH ADP-ribose/TRPM2-mediated Ca²⁺ signaling is essential for cytolytic degranulation and antitumor activity of natural killer cells. *Sci Rep* 2015-03-25 [PMID: 25879940] (ICC/IF, Mouse)

Details:

This publication used the DL550 conjugated form of this antibody (NB110-81601R)

Chung MK, Asgar J, Lee J et al. The role of TRPM2 in hydrogen peroxide-induced expression of inflammatory cytokine and chemokine in rat trigeminal ganglia *Neuroscience* 2015-04-04 [PMID: 25849615] (WB, Rat)

More publications at <http://www.novusbio.com/NB110-81601>



Procedures

Immunocytochemistry/Immunofluorescence protocol for TRPM2 Antibody (NB110-81601)

TRPM2 Antibody:

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

Immunohistochemistry-Paraffin Protocol for TRPM2 Antibody (NB110-81601)

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer all the time).

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.



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Products Related to NB110-81601

NB110-81601PEP	TRPM2 Antibody Blocking Peptide
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

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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