Product Datasheet

TRPA1 Antibody - BSA Free
NB110-40763

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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Reviews: 2 Publications: 60

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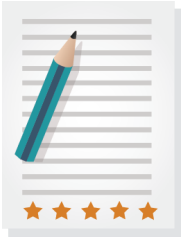
Updated 8/17/2023 v.20.1



NB110-40763

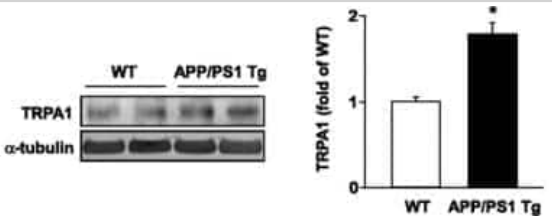
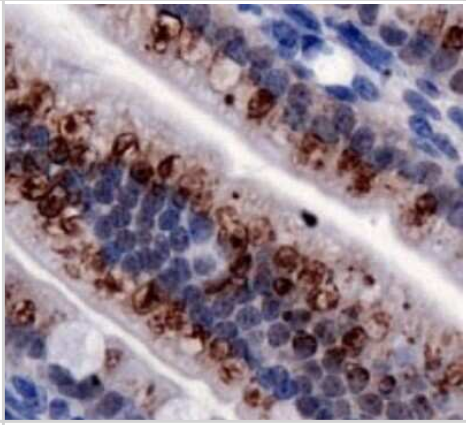
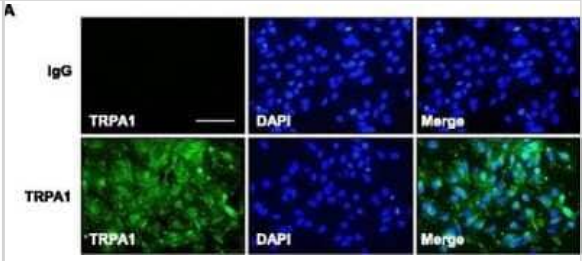
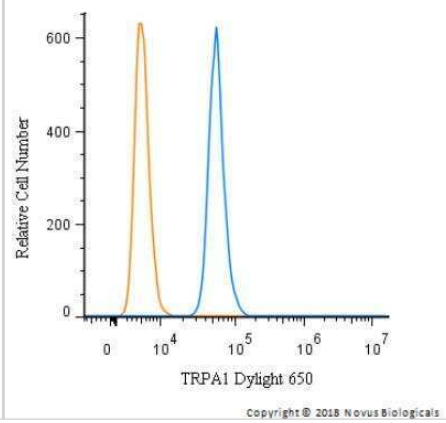
TRPA1 Antibody - BSA Free

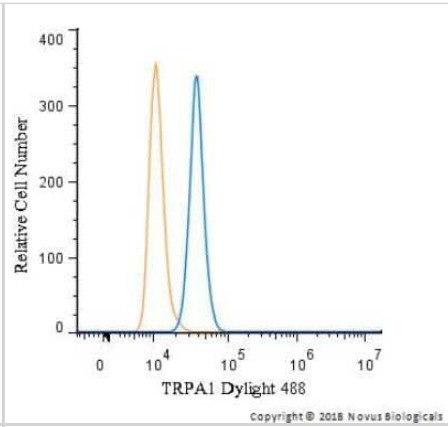
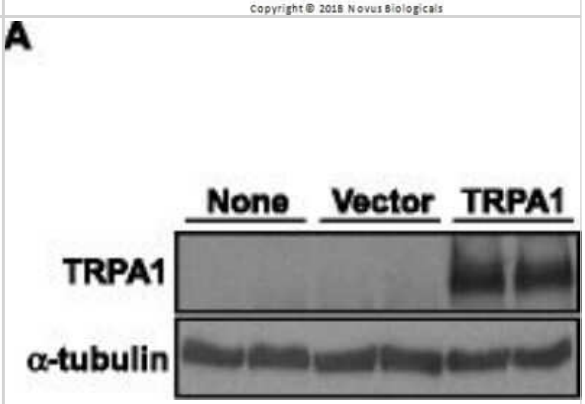
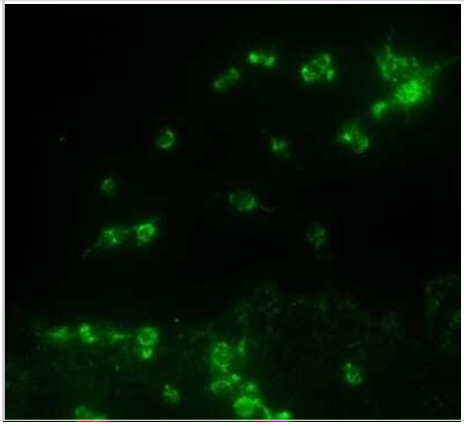
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	127.5 kDa

Product Description	
Host	Rabbit
Gene ID	8989
Gene Symbol	TRPA1
Species	Human, Mouse, Rat, Guinea Pig, Zebrafish
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 27748654). Zebrafish reactivity reported from a verified customer review.
Specificity/Sensitivity	Additional modified form of TRPA1 can also be detected.
Immunogen	A synthetic peptide made to a region within the N-terminus (residues 1-100) of the human TRPA1 protein. [Swiss-Prot# O75762]

Product Application Details	
Applications	Western Blot, ELISA, Flow Cytometry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 2 ug/ml, Flow Cytometry, ELISA, Immunohistochemistry 0.5-1.0 ug/ml, Immunocytochemistry/Immunofluorescence 1:200, Immunohistochemistry-Paraffin 1:100-1:250, Immunohistochemistry-Frozen
Application Notes	This TRPA1 antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry paraffin embedded sections and Western blot analysis. Additional modified form of TRPA1 can also be detected. Immunohistochemistry-Frozen was reported in scientific literature. Use in FLOW reported in scientific literature (PMID: 28990934). Use in ELISA reported in scientific literature (PMID: 29803505).

Images

Western Blot: TRPA1 Antibody [NB110-40763] - Expression and localization of TRPA1 channels in wild-type (WT) and APP/PS1 Tg mice. Brains were harvested from WT and APP/PS1 Tg mice at 8A months old. Western blot analysis of protein levels of TRPA1 and I+--tubulin. Image collected and cropped by Citeab from the following publication (Role of transient receptor potential ankyrin 1 channels in Alzheimer's disease. J Neuroinflammation (2016)) licensed under a CC-BY license.	
Immunohistochemistry: TRPA1 Antibody [NB110-40763] - Staining TRPA1 in mouse intestine.	
Immunocytochemistry/Immunofluorescence: TRPA1 Antibody [NB110-40763] - Ai2 elicits TRPA1-dependent Ca2+ influx in astrocytes. Immunostaining of primary astrocytes from WT mice with anti-IgG and anti-TRPA1 antibody, then FITC-conjugated secondary antibody. Image collected and cropped by Citeab from the following publication (Role of transient receptor potential ankyrin 1 channels in Alzheimer's disease. J Neuroinflammation (2016)) licensed under a CC-BY license.	
Flow Cytometry: TRPA1 Antibody [NB110-40763] - An intracellular stain was performed on A549 cells with NB110-40763C (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 650.	

Flow Cytometry: TRPA1 Antibody [NB110-40763] - An intracellular stain was performed on A549 cells with NB110-40763G (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to DyLight 488	
Western Blot: TRPA1 Antibody [NB110-40763] - The essential role of TRPA1 in Ai2-induced calcium influx in HEK293 cells. (a) Western blot analysis of TRPA1 and I+--tubulin protein levels in non-treated, vector-or TRPA1-transfected HEK293 cells. Image collected and cropped by Citeab from the following publication (Role of transient receptor potential ankyrin 1 channels in Alzheimer's disease. J Neuroinflammation (2016)) licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: TRPA1 Antibody [NB110-40763] - Analysis of TRPA1 in HEK 293 cells (Flp In Trex system) cells.	

Publications

Pereira GC, Piton E, Bornholdt J et al. TRPA1 participation in behavioral impairment induced by chronic corticosterone administration Psychopharmacology 2022-12-15 [PMID: 36520197]

Schulte A Reprogramming of glial cells from adult dorsal root ganglia into nociceptor-like neurons Thesis 2023-01-01

Yang N, Shao H, Deng J et al. Dictamnine ameliorates chronic itch in DNFB-induced atopic dermatitis mice via inhibiting MrgprA3 Biochemical pharmacology 2022-12-06 [PMID: 36493846] (WB, Mouse)

Details:
Dilution used 1:1000

Zhao M, Zheng Z, Xu Y et al. TRPA1 deficiency attenuates cardiac fibrosis via regulating GRK5/NFAT signaling in diabetic rats Research Square 2022-08-25 (ICC/IF, WB, Rat, Human)

Lowin T, Laaser SA, Kok C et al. Cannabidiol: Influence on B Cells, Peripheral Blood Mononuclear Cells, and Peripheral Blood Mononuclear Cell/Rheumatoid Arthritis Synovial Fibroblast Cocultures Cannabis and cannabinoid research 2022-08-03 [PMID: 35920857]

Kusiak AA, Jakubowska MA, Stopa KB et al. Activation of pancreatic stellate cells attenuates intracellular Ca2+ signals due to downregulation of TRPA1 and protects against cell death induced by alcohol metabolites Cell death & disease 2022-08-29 [PMID: 36038551] (ICC/IF, Human)

Details:
Dilutions: 1:300

Vasavda C, Xu R, Liew J et al. Identification of the NRF2 transcriptional network as a therapeutic target for trigeminal neuropathic pain Science advances 2022-08-05 [PMID: 35921423] (WB, Mouse)

Details:
Dilutions: 1:1000; Supplementary Figure 2

Nummenmaa E TRPA1 as a Novel Factor and Drug Target in Osteoarthritis Int J Mol Sci 2020-12-30 [PMID: 33374841]

Liu Q, Feng L, Han X et al. The TRPA1 Channel Mediates Mechanical Allodynia and Thermal Hyperalgesia in a Rat Bone Cancer Pain Model Front Pain Res (Lausanne) 2022-03-17 [PMID: 35295475]

Wamba B, Ghosh P, Mbaveng A, et al. Botanical from Piper capense Fruit Can Help to Combat the Melanoma as Demonstrated by In Vitro and In Vivo Studies Evid Based Complement Alternat Med 2021-05-19 [PMID: 34007300]

Marcotti A, Fernandez-Trillo J, Gonzalez A et al. TRPA1 modulation by Sigma-1 receptor prevents oxaliplatin-induced painful peripheral neuropathy Brain : a journal of neurology 2022-07-24 [PMID: 35871491] (WB, Human)

Details:
1:500 dilution, HEK-293 cells

Zhu H, Wang Y, He Y, Yu W Inflammation-mediated macrophage polarization induces TRPV1/TRPA1 heteromers in endometriosis American journal of translational research 2022-05-15 [PMID: 35702089] (WB, IF/IHC, ICC/IF, Mouse, Human)

More publications at http://www.novusbio.com/NB110-40763

Procedures

Western Blot protocol for TRPA1 Antibody (NB110-40763)
[[URL:https://www.novusbio.com/products/trpa1-antibody_nb110-40763]][[Caption:TRPA1 Antibody]]
1. Perform SDS-PAGE (4-12% Bis-Tris) on samples to be analyzed, loading 32ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% non-fat dry milk + 1% BSA in TBS, for 2 hours at room temperature.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-TRPA1 primary antibody (NB 110-40763) in blocking buffer and incubate 2 hours at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions (Pierce ECL).
**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Immunohistochemistry-Paraffin protocol for TRPA1 Antibody (NB110-40763)
[[URL:https://www.novusbio.com/products/trpa1-antibody_nb110-40763]][[Caption:TRPA1 Antibody]]
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.

Staining
- Wash sections in dH2O three times for 5 minutes each.
- Wash section in wash buffer (1X PBS/0.1% Tween-20 (1X PBST)) for 5 minutes.
- Block each section with 100-400 ul blocking solution (1X PBST, 5% goat serum) for 1 hour at room temperature.
- Remove blocking solution and add 100-400 ul primary antibody diluted in 1X PBST, 5% goat serum to each section. Incubate overnight at 4C.
- Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
- Add 100-400 ul biotinylated secondary antibody, diluted in 1X PBST, 5% goat serum. Incubate 30 minutes at room temperature.
- Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
- Add 100-400 ul Streptavidin HRP reagent to each section and incubate for 30 minutes at room temperature.
- Wash sections three times in wash buffer for 5 minutes each.
- Add 100-400 ul DAB substrate to each section and monitor staining closely.
- As soon as the sections develop, immerse slides in dH2O.
- Counterstain sections in hematoxylin.
- Wash sections in dH2O two times for 5 minutes each.
- Dehydrate sections.
- Mount coverslips.

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Products Related to NB110-40763

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7156	Goat anti-Rabbit IgG (H+L) Secondary Antibody
NBP2-24891	Rabbit IgG Isotype Control
NB110-40763C	TRPA1 Antibody [DyLight 650]

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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