

Product Datasheet

ASC/TMS1 Antibody - BSA Free NBP1-78978

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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NBP1-78978

ASC/TMS1 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.12 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 and 30% Glycerol

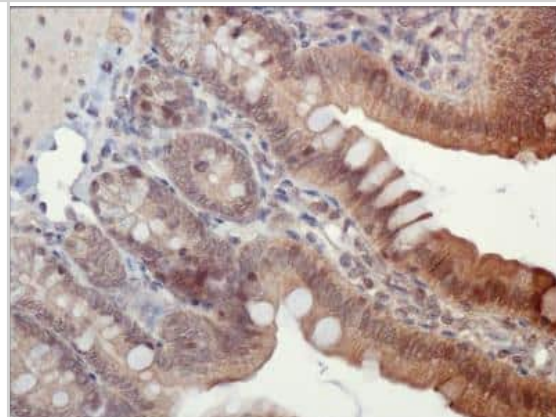
Product Description	
Description	Novus Biologicals Rabbit ASC/TMS1 Antibody - BSA Free (NBP1-78978) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-ASC/TMS1 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	29108
Gene Symbol	PYCARD
Species	Human, Mouse
Immunogen	This ASC/TMS1 Antibody was developed against a synthetic peptide made to a C-terminal portion of the human ASC/TMS1 protein (between residues 145-195) [Uniprot: Q9ULZ3]

Product Application Details	
Applications	Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Western Blot (Negative)
Recommended Dilutions	Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:40-1:100, Immunohistochemistry-Paraffin 1:200, Western Blot (Negative)
Application Notes	Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. This antibody is not recommended for Western Blot.

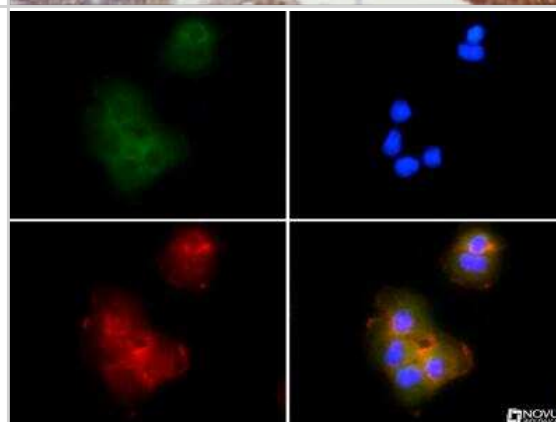


Images

Immunohistochemistry: ASC/TMS1 Antibody [NBP1-78978] - Analysis of ASC/TMS1 in mouse intestine using DAB with hematoxylin counterstain.

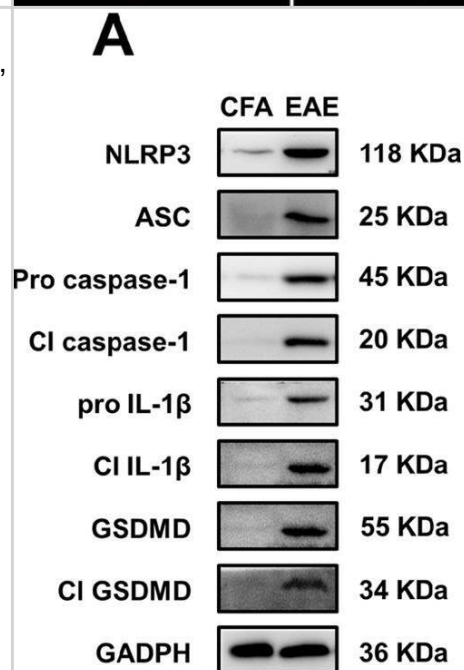


Immunocytochemistry/Immunofluorescence: ASC/TMS1 Antibody [NBP1-78978] - Tested in A431 cells with FITC (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



NLRP3 inflammasome and GSDMD are strongly expressed and activated in CNS microglia during EAE. A Immunoblot analysis of NLRP3, ASC, full-length (FL) and cleaved caspase-1, IL-1 β , and GSDMD in the lumbosacral spinal cords of EAE-induced WT mice at peak disease or CFA-treated mice on day 18 after treatment (n = 10 per group). B Immunohistochemistry showing infiltration of NLRP3, ASC, caspase-1, IL-1 β , and GSDMD-positive immune cells in the spinal cords of EAE-induced WT mice at peak disease or CFA-treated WT mice on day 18 after treatment. Scale bar: 50 μ m. n = 10 per group. C

Immunofluorescent labeling of Iba-1 (green), NLRP3, ASC, caspase-1, or GSDMD (red), and DAPI (blue) demonstrates the expression and process of NLRP3 inflammasome and GSDMD-mediated pyroptosis in the microglia of WT EAE mice at peak disease or CFA-treated WT mice on day 18 after treatment (n = 10 per group). Scale bar: 20 μ m. Data are from three representative independent experiments and were analyzed by an unpaired t-test or the Mann-Whitney U test. Error bars show the mean \pm SEM. ***P < 0.001. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36765034>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Singh S, Kannan M, Oladapo A, Deshetty UM et Al. Ethanol modulates astrocyte activation and neuroinflammation via miR-339/NLRP6 inflammasome signaling *Free Radic Biol Med* 2024-11-10 [PMID: 39522566]

Vemuri, V;Kratholm, N;Nagarajan, D;Cathey, D;Abdelbaset-Ismail, A;Tan, Y;Straughn, A;Cai, L;Huang, J;Kakar, SS; Withaferin A as a Potential Therapeutic Target for the Treatment of Angiotensin II-Induced Cardiac Cachexia *Cells* 2024-05-03 [PMID: 38727319]

Wang Y, Pei S, Liu Z et al. IRAK-M suppresses the activation of microglial NLRP3 inflammasome and GSDMD-mediated pyroptosis through inhibiting IRAK1 phosphorylation during experimental autoimmune encephalomyelitis *Cell death & disease* 2023-02-10 [PMID: 36765034] (IHC, WB, Mouse)

Su M, Chen C, Li S Et al. Gasdermin D-dependent platelet pyroptosis exacerbates NET formation and inflammation in severe sepsis *Nat Cardiovasc Res* 2022-08-15 [PMID: 35967457] (ICC/IF, Human)

Details:

Citation using the Alexa Fluor 405 version of this antibody.

He, X F, Zeng, Y X Et al. Extracellular ASC exacerbated the recurrent ischemic stroke in an NLRP3-dependent manner. *J Cereb Blood Flow Metab* 2020-05-01 [PMID: 31216943] (WB, Human)

Lliberos C, Liew SH, Zareie P, et al. Evaluation of inflammation and follicle depletion during ovarian ageing in mice *Scientific reports* 2021-01-11 [PMID: 33432051] (WB, Mouse)

Chivero ET, Thangaraj A, Tripathi A, et al. NLRP3 Inflammasome Blockade Reduces Cocaine-Induced Microglial Activation and Neuroinflammation *Molecular neurobiology* 2021-01-08 [PMID: 33417223]

Yang Q, Liu Q, Lv H, et al. Effect of pulegone on the NLRP3 inflammasome during inflammatory activation of THP 1 cells *Exp Ther Med* 2019-12-13 [PMID: 32010303]



Procedures

Immunohistochemistry-Paraffin Embedded Sections protocol specific for TMS1 antibody (NBP1-78978)

ASC/TMS1 Antibody:

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.

Staining:

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

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

Immunocytochemistry/Immunofluorescence protocol for ASC/TMS1 Antibody (NBP1-78978)

ASC/TMS1 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.

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Products Related to NBP1-78978

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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