

Product Datasheet

TMEM97 Antibody - BSA Free NBP1-30436

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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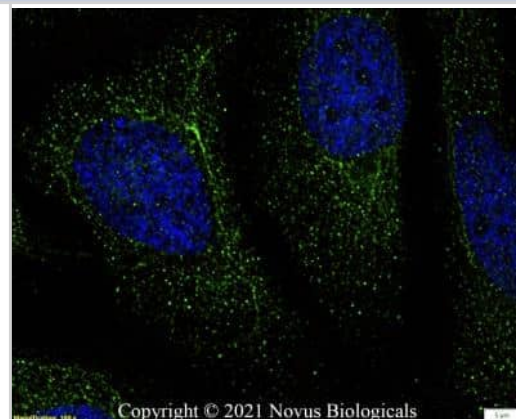
NBP1-30436

TMEM97 Antibody - BSA Free

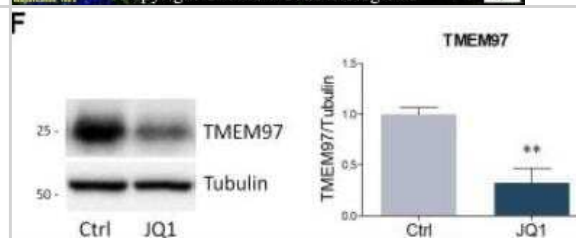
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	24 kDa
Product Description	
Description	Novus Biologicals Rabbit TMEM97 Antibody - BSA Free (NBP1-30436) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and Simple Western. Anti-TMEM97 Antibody: Cited in 12 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	27346
Gene Symbol	TMEM97
Species	Human, Mouse
Reactivity Notes	Immunogen displays the following percentage of sequence identity for non-tested species: crab-eating macaque (98%). Mouse reactivity reported in scientific literature (PMID: 30594810).
Immunogen	Synthetic peptide made to an internal portion of the human TMEM97 protein (within residues 105-155. [Swiss-Prot: Q5BJF2])
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/ml, Simple Western 1:50, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1-5 ug/ml, Immunohistochemistry-Paraffin 1:200
Application Notes	In Western blot, a band is seen at ~24 kDa.

Images

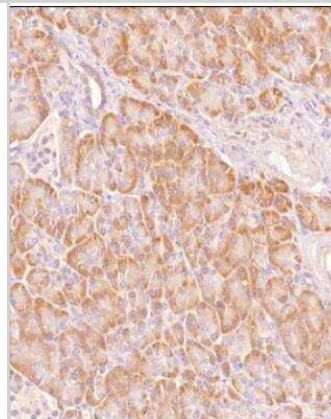
Immunocytochemistry/Immunofluorescence: TMEM97 Antibody [NBP1-30436] - HeLa cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-TMEM97 Antibody NBP1-30436 at 1 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



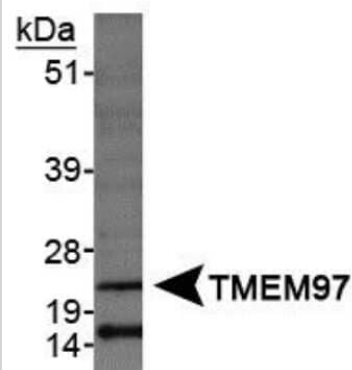
Western Blot: TMEM97 Antibody [NBP1-30436] - Expression of proteins involved in extracellular lipid uptake and intracellular cholesterol trafficking following JQ1 (0.4 uM) administration to HepG2 cells for 48 hours. Representative Western blots and densitometric analysis of TMEM97. Tubulin was chosen as loading control. n = 6 independent experiments. Data represent means +/- SD. Statistical analysis was performed by using unpaired Student's t test. ** p < 0.01; *** p < 0.001. Image collected and cropped by CiteAb from the following publication (<https://www.mdpi.com/1422-0067/21/4/1297>), licensed under a CC-BY license.



Immunohistochemistry-Paraffin: TMEM97 Antibody [NBP1-30436] - Analysis of a FFPE tissue section of human pancreas using 1:200 dilution of TMEM97 antibody. The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin.



Western Blot: TMEM97 Antibody [NBP1-30436] - Analysis of TMEM97 in HeLa whole cell extracts.



Publications

Son KN, Lee H, Shah D et al. Histatin-1 is an endogenous ligand of the sigma-2 receptor The FEBS Journal 2021-12-01 [PMID: 34233061] (Western Blot, Immunocytochemistry/ Immunofluorescence, Human)

Sorbi C, Belluti S, Atene CG et al. BS148 Reduces the Aggressiveness of Metastatic Melanoma via Sigma-2 Receptor Targeting International journal of molecular sciences 2023-06-02 [PMID: 37298633] (WB, Human)

Thejer BM, Infantino V, Santarsiero A et al. Sigma-2 Receptor Ligand Binding Modulates Association between TSPO and TMEM97 International journal of molecular sciences 2023-03-28 [PMID: 37047353] (WB)

Riad A, Lengyel-Zhand Z, Zeng C et Al. The Sigma-2 Receptor/TMEM97, PGRMC1, and LDL Receptor complex are responsible for the cellular uptake of A beta 42 and its protein aggregates Mol Neurobiol 2020-06-24 [PMID: 32572762]

Mao D, Zhang X, Wang Z et al. TMEM97 is transcriptionally activated by YY1 and promotes colorectal cancer progression via the GSK-3 beta/beta-catenin signaling pathway Human cell 2022-07-30 [PMID: 35907137]

Liu CZ, Mottinelli M, Nicholson HE et al. Identification and characterization of MAM03055A: a novel bivalent sigma-2 receptor/TMEM97 ligand with cytotoxic activity European journal of pharmacology 2021-06-15 [PMID: 34144027]

Sereti E, Tsimplouli C, Kalaitidou E, et al. Study of the Relationship between Sigma Receptor Expression Levels and Some Common Sigma Ligand Activity in Cancer Using Human Cancer Cell Lines of the NCI-60 Cell Line Panel Biomedicines 2021-01-05 [PMID: 33466391] (WB, Human)

Tonini C, Colardo M, et al. Inhibition of Bromodomain and Extraterminal Domain (BET) Proteins by JQ1 Unravels a Novel Epigenetic Modulation to Control Lipid Homeostasis. Int J Mol Sci 2020-02-14 [PMID: 32075110] (WB, Human)

Shen H, Li J, Xie X et al. BRD2 regulation of sigma-2 receptor expression upon cytosolic cholesterol deprivation bioRxiv (WB)

Details:

WB concentration 1:200

Ryskamp D, Wu L, Wu J et al. Pridopidine stabilizes mushroom spines in mouse models of Alzheimer's disease by acting on the sigma-1 receptor Neurobiol. Dis. 2018-12-27 [PMID: 30594810] (WB, Mouse)

Riad A, Zeng C, Weng CC et al. Sigma-2 Receptor/TMEM97 and PGRMC-1 Increase the Rate of Internalization of LDL by LDL Receptor through the Formation of a Ternary Complex. Sci Rep. 2018-11-15 [PMID: 30443021] (ICC/IF, Human)

Ebrahimi-Fakhari D, Wahlster L, Bartz F et al. Reduction of TMEM97 increases NPC1 protein levels and restores cholesterol trafficking in Niemann-pick type C1 disease cells Hum. Mol. Genet. 2016-07-04 [PMID: 27378690] (ICC/IF)

More publications at <http://www.novusbio.com/NBP1-30436>

Procedures

Western Blot protocol for TMEM97 Antibody (NBP1-30436)

TMEM97 Antibody:

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 40 ug 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% NFD_M + 1% BSA in TBS + Tween, 1 hour at RT.
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-TMEM97 primary antibody (NBP1-30436) in blocking buffer and incubate 1 hour 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 manufacturers 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 manufacturers 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.





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Products Related to NBP1-30436

NB800-PC1	HeLa Whole Cell Lysate
NBP1-30436PEP	TMEM97 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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