

Product Datasheet

TOMM20 Antibody - BSA Free NBP1-81556

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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Updated 2/21/2025 v.20.1

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NBP1-81556

TOMM20 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

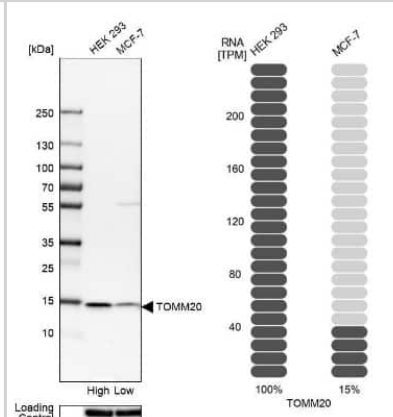
Product Description	
Host	Rabbit
Gene ID	9804
Gene Symbol	TOMM20
Species	Human, Mouse
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: KRRSDPNFKNRLRERRKKQKLAKERAGLSKLPDLKDAEAVQKFFLEEIQLGEEL LAQGEYEKGV DHLTNAIAVCGQPQQLLQVLQQTLP PPVFQMLLTKLPTISQRIV SAQSLAEDDV

Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Simple Western, Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:500 - 1:1000
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in RT-4 and U-251MG, separated by Size, antibody dilution of 1:30, apparent MW was 18 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

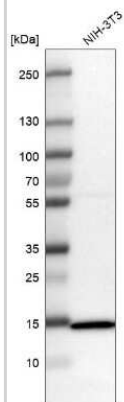


Images

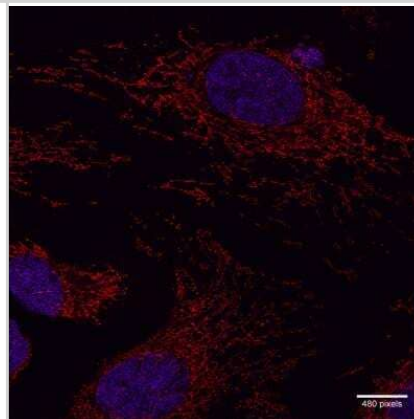
Western Blot: TOMM20 Antibody [NBP1-81556] - Analysis in human cell lines HEK293 and MCF-7. Corresponding TOMM20 RNA-seq data are presented for the same cell lines. Loading control: Anti-HSP90B1.



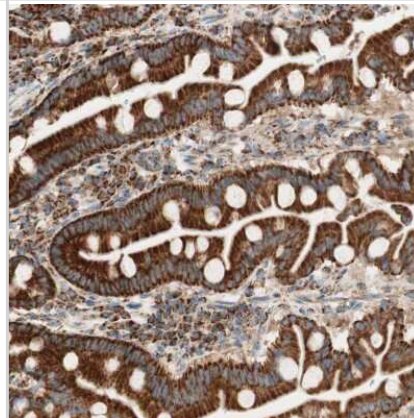
Western Blot: TOMM20 Antibody [NBP1-81556] - Analysis in mouse cell line NIH-3T3.



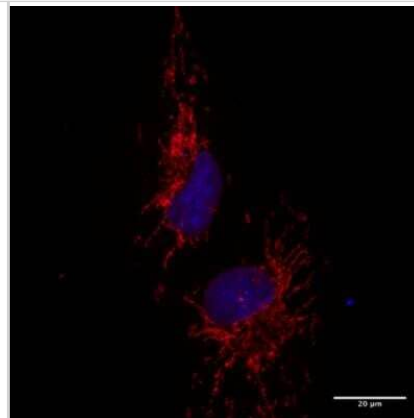
Immunocytochemistry/Immunofluorescence: TOMM20 Antibody [NBP1-81556] - Z-stack confocal images with SRRF (super-resolution radial fluctuations) analysis of Tomm20, an outer mitochondrial membrane protein, in HeLa cells. Tomm20 was detected in HeLa cells using 1 ug/ml Rb anti-Tomm20 (NBP1-81556) and 1:500 JF646-conjugated anti-Rb secondary antibody (red). Cells were counterstained with Dapi (blue). Image submitted by a verified customer review.



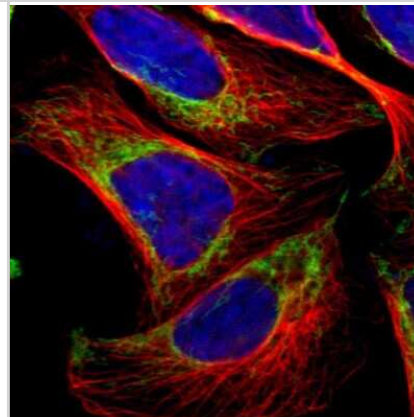
Immunohistochemistry-Paraffin: TOMM20 Antibody [NBP1-81556] - Staining of human duodenum shows moderate to strong positivity in mitochondria in glandular cells.



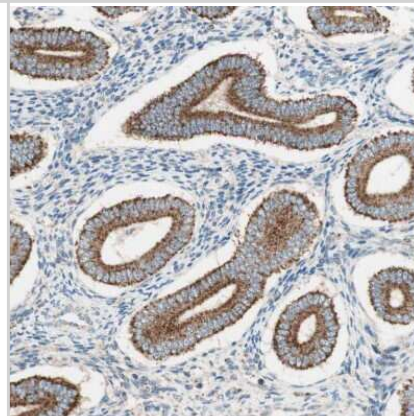
Immunocytochemistry/Immunofluorescence: TOMM20 Antibody [NBP1-81556] - RPE1 cells were fixed with 4% PFA, permeablized and blocked in 2.5% BSA with 0.2% Triton-X. Primary antibody was diluted 1:200 in PBS containing 2.5% BSA overnight at 4 deg C. Cells were incubated with anti-rabbit secondary antibody and counterstained with hoescht 33342. Image was collected using Zeiss 780 LSM. Image submitted by a verified customer review.



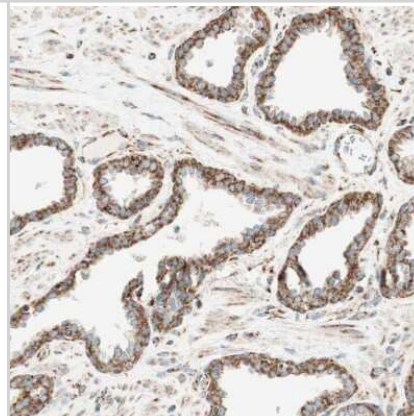
Immunocytochemistry/Immunofluorescence: TOMM20 Antibody [NBP1-81556] - Staining of human cell line U-2 OS shows localization to mitochondria. Antibody staining is shown in green.



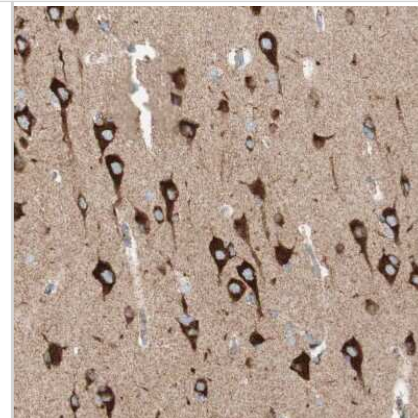
Immunohistochemistry-Paraffin: TOMM20 Antibody [NBP1-81556] - Staining of human endometrium shows moderate to strong positivity in mitochondria in glandular cells.



Immunohistochemistry-Paraffin: TOMM20 Antibody [NBP1-81556] - Staining of human prostate shows moderate to strong positivity in mitochondria in glandular cells.



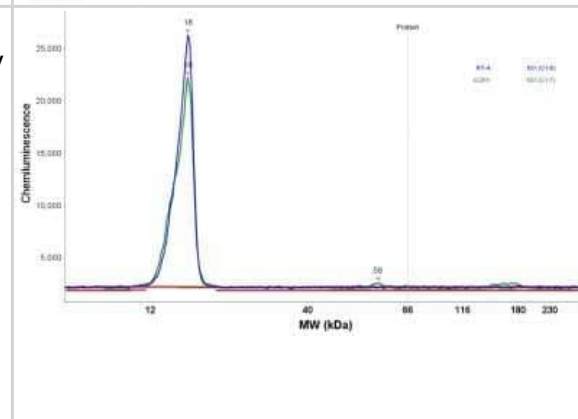
Immunohistochemistry-Paraffin: TOMM20 Antibody [NBP1-81556] - Staining of human cerebral cortex shows moderate to strong positivity in mitochondria in neurons.



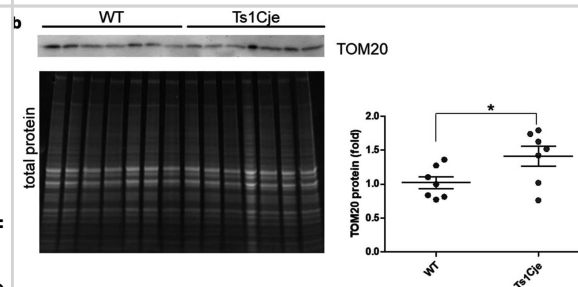
Simple Western: TOMM20 Antibody [NBP1-81556] - Simple Western lane view shows a specific band for TOMM20 in 0.2 mg/ml of RT-4 (Left) and U-251MG (Right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Simple Western: TOMM20 Antibody [NBP1-81556] - Electropherogram image(s) of corresponding Simple Western lane view. TOMM20 antibody was used at 1:30 dilution on RT-4 and U-251MG lysate(s).



Western Blot: TOMM20 Antibody [NBP1-81556] - Quantification of LC3B-II & TOM20 proteins in WT & Ts1Cje hippocampus. Hippocampal proteins from WT & Ts1Cje mice pairs were analyzed in Western blot with anti-LC3B or anti-TOM20 antibody. A LC3B western blot showing WT & Ts1Cje littermate pairs analyzed & total protein loaded. The ratio LC3B-II/LC3B-I is shown as the mean \pm SEM (WT: 0.8714 ± 0.04154 ; Ts1Cje: 0.6500 ± 0.06802 ; $p = 0.0152$, Student's t-test, $n = 7$ for WT & $n = 6$ for Ts1Cje). B TOM20 western blot showing WT & Ts1Cje littermate pairs analyzed & total protein loaded. The signals were normalized to the corresponding total protein loaded & the mean \pm SEM values are shown (WT: 1.024 ± 0.08799 ; Ts1Cje: 1.412 ± 0.1452 ; $p = 0.0414$, Student's t-test, $n = 7$ animals per genotype) Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/34034796>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

F Guilhaume-, AM Pickrell, PJ VandeVord The Imbalance of Astrocytic Mitochondrial Dynamics Following Blast-Induced Traumatic Brain Injury *Biomedicines*, 2023-01-24;11(2):. 2023-01-24 [PMID: 36830865]

Onuchic L, Padovano V, Schena G et al. The C-terminal tail of polycystin-1 suppresses cystic disease in a mitochondrial enzyme-dependent fashion *Nature communications* 2023-03-30 [PMID: 36997516] (WB, Mouse)

Details:

1:1000 WB dilution

Cassina, L, Chiaravalli, M Et al. Increased mitochondrial fragmentation in polycystic kidney disease acts as a modifier of disease progression. *FASEB J* 2020-05-01 [PMID: 32239723] (WB)

Urbano-GAmez JD, CasaNas JJ, Benito I, Montesinos ML Prenatal treatment with rapamycin restores enhanced hippocampal mGluR-LTD and mushroom spine size in a Down's syndrome mouse model *Molecular brain* 2021-05-25 [PMID: 34034796]

Ghosh P, Guo Y, Ashrafi A et al. Oxygen-enhanced optoacoustic tomography reveals the effectiveness of targeting heme and oxidative phosphorylation at normalizing tumor vascular oxygenation *Cancer Res.* 2020-06-16 [PMID: 32546631] (IF/IHC, Human)

Li B, Zhao H, Wu Y et al. Mitochondrial-Derived Vesicles Protect Cardiomyocytes Against Hypoxic Damage *Front Cell Dev Biol* 2020-04-17 [PMID: 32426351] (ICC/IF, Rat)

Iannielli A, Ugolini GS, Cordiglieri C, et al. Reconstitution of the Human Nigro-striatal Pathway on-a-Chip Reveals OPA1-Dependent Mitochondrial Defects and Loss of Dopaminergic Synapses *Cell Rep* 2019-12-24 [PMID: 31875567] (IF/IHC)

Sala, D;Cunningham, TJ;Stec, MJ;Etxaniz, U;Nicoletti, C;Dall'Agnes, A;Puri, PL;Duester, G;Latella, L;Sacco, A; The Stat3-Fam3a axis promotes muscle stem cell myogenic lineage progression by inducing mitochondrial respiration *Nat Commun* 2019-04-17 [PMID: 30996264] (ICC/IF, Mouse)

Ward JM, Stoyas CA, Switonski PM et al. Metabolic and Organelle Morphology Defects in Mice and Human Patients Define Spinocerebellar Ataxia Type 7 as a Mitochondrial Disease *Cell Rep* 2019-01-29 [PMID: 30699348] (WB, Mouse)

Weber TA, Koob S, Heide H et al. APOOL Is a Cardiolipin-Binding Constituent of the Mitofilin/MINOS Protein Complex Determining Cristae Morphology in Mammalian Mitochondria. *PLoS One* 2013-01-01 [PMID: 23704930]

Stadler C, Hjelmare M, Neumann B et al. Systematic validation of antibody binding and protein subcellular localization using siRNA and confocal microscopy. *J Proteomics* 2012-04-03 [PMID: 22361696]





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Products Related to NBP1-81556

NBP1-81556PEP	TOMM20 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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