

Product Datasheet

MCT8/SLC16A2 Antibody - BSA Free NBP2-57308

Unit Size: 100 ul

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

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NBP2-57308

MCT8/SLC16A2 Antibody - BSA Free

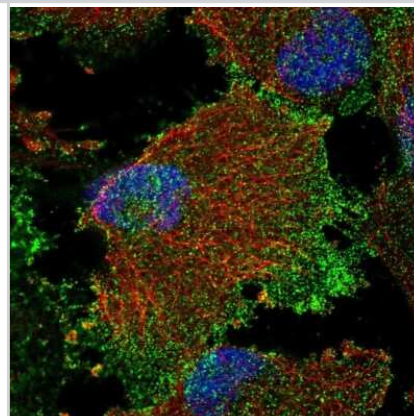
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol

Product Description	
Description	Novus Biologicals Rabbit MCT8/SLC16A2 Antibody - BSA Free (NBP2-57308) is a polyclonal antibody validated for use in IHC and ICC/IF. Anti-MCT8/SLC16A2 Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	6567
Gene Symbol	SLC16A2
Species	Human, Mouse
Immunogen	This antibody was developed against a recombinant protein corresponding to the following amino acid sequence: LMHQRMFKKEQRDSSKDKMLAPDPDPNGELLPGSPNPEEPI

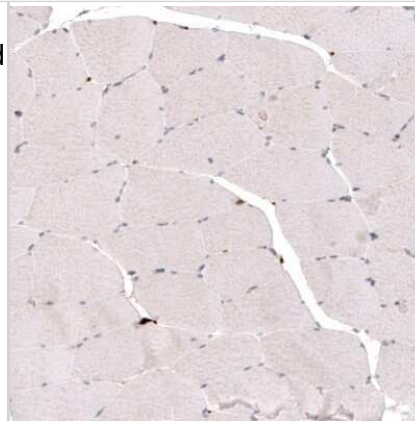
Product Application Details	
Applications	Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:500 - 1:1000
Application Notes	ICC/IF Fixation Permeabilization: Use PFA/Triton X-100. IHC-P Retrieval method: HIER pH6.

Images

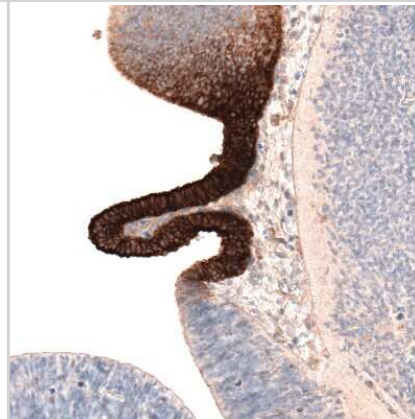
Immunocytochemistry/Immunofluorescence: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of human cell line U-251 MG shows localization to plasma membrane. Antibody staining is shown in green.



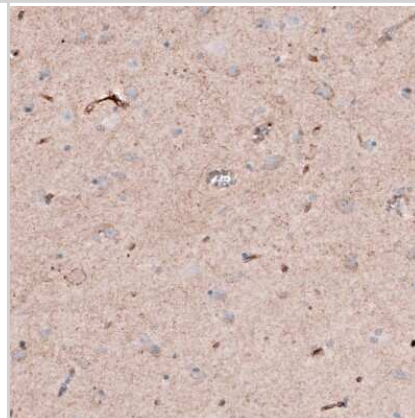
Immunohistochemistry-Paraffin: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of human skeletal muscle shows no positivity in striated muscle fibers as expected.



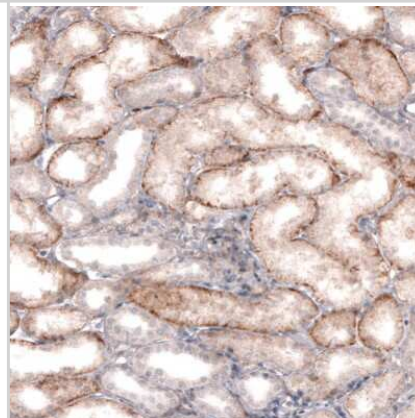
Immunohistochemistry-Paraffin: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of mouse embryo E11 shows strong membranous positivity in the developing circumventricular organ.



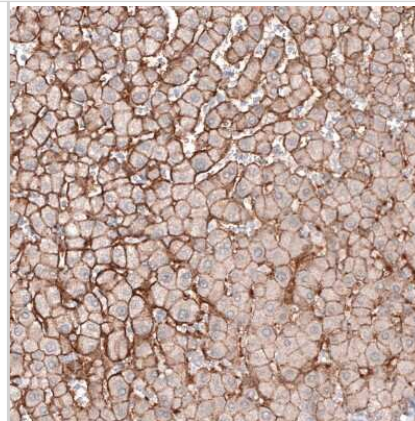
Immunohistochemistry-Paraffin: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of human cerebral cortex shows moderate positivity in neuropil.



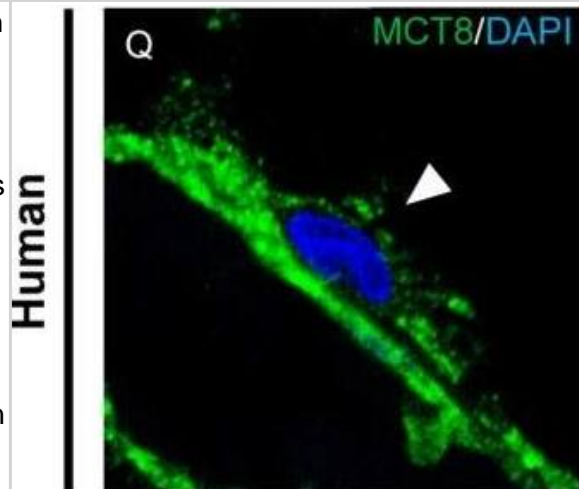
Immunohistochemistry-Paraffin: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of human kidney shows moderate membranous positivity in cells in tubules.



Immunohistochemistry-Paraffin: MCT8/SLC16A2 Antibody [NBP2-57308] - Staining of human liver shows moderate to strong membranous positivity in hepatocytes.

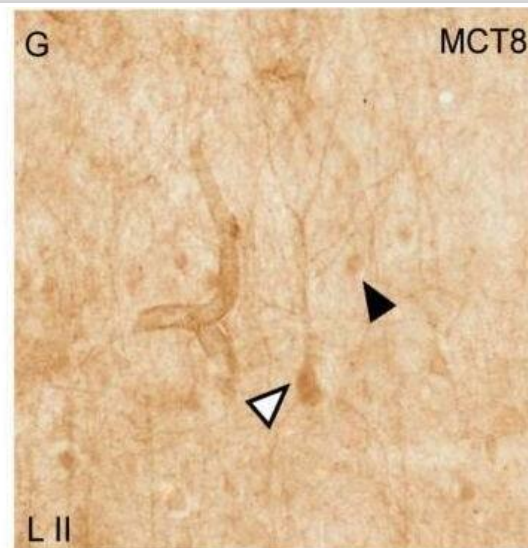


Expression of MCT8 and OATP1C1 in the cerebral barriers of the human and macaque motor cortex. Representative brightfield (A,E,I,M) and fluorescence confocal microscope (B–D,F–H,J–L,N–T) photomicrographs showing immunostaining for MCT8 (A–H,Q–T) and OATP1C1 (I–P) in blood vessels of human and macaque motor cortex. (A,E) show strong MCT8 staining in the endothelial layer of small vessels and capillaries (white arrowheads) in humans and macaques, respectively. (B–D,F–H) show colocalization of MCT8 (green) with the endothelial markers UEA-I (red) and ENG (red). (I,M) show weak OATP1C1 staining in small vessels (white arrowheads) and venules (black arrowheads). The red arrowhead in M points to a glial cell positive for OATP1C1 with processes surrounding the capillary. (J–L,N–P) show colocalization of OATP1C1 (green) with UEA-I (red) and endoglin (red) in a few blood vessels of the human and macaque motor cortex, respectively. White arrowheads point to vessels. In both human and macaque brain tissues, MCT8-immunopositive capillaries are much more abundant than OATP1C1-immunopositive capillaries, which can only be seen occasionally. Moreover, (Q–T) show MCT8-expressing pericytes (white arrowheads) in the human motor cortex that in addition to express MCT8 (green), also show the pericyte biomarker PDGFR- β (pink), but not the endothelial marker UEA-I (red). Counterstaining with DAPI (blue) shows nuclei of all cells. ENG: endoglin, UEA-I: Ulex Europaeus Agglutinin-I. PDGFR- β : platelet-derived growth factor receptor beta. Scale bar = 100 μ m (A,E,I,M), 25 μ m (B–D), 50 μ m (J–L), 120 μ m (F–H,N–P), and 12 μ m (Q–T). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36834621>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

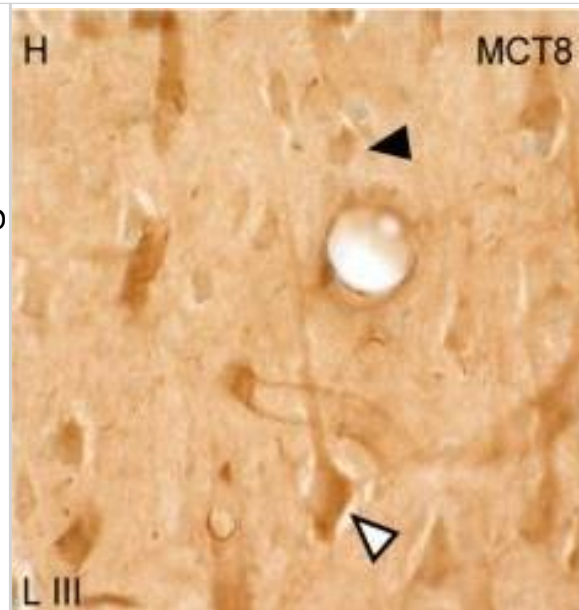


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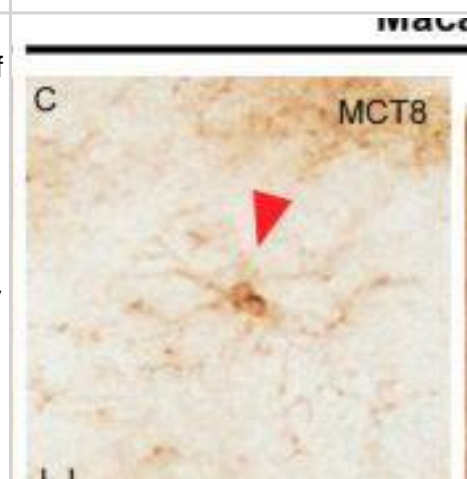
Expression of MCT8 in pyramidal neurons of the human and macaque motor cortex. Representative brightfield photomicrographs show immunostaining for MCT8 in layers III (A), V (B) and VI (C) of the human motor cortex, and layers II (G), III (H), and V (I) of the macaque motor cortex. White arrowheads point to pyramidal neurons with immunopositive signal in the soma, apical and basal dendrites. Black arrowheads point to smaller cells with the morphology of interneurons. (D–F) (human) and (J–L) (macaque) show confocal microscope images from double-stained sections for MCT8 (green) and the pyramidal neuron markers SMI-32 (red) for 200 kDa neurofilament protein or neurogranin/RC3 (red), respectively. White arrowheads point to pyramidal neurons. Counterstaining with DAPI (blue) shows nuclei of all cells. Note that in humans, the MCT8 signal is located mainly in the pyramidal cell membrane, while in macaques it is located in the membrane and the cytoplasm. Scale bar = 50 μ m (A), 120 μ m (B,I), 25 μ m (C–F), 60 μ m (G), 62.5 μ m (H), and 43.5 μ m (J–L). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36834621>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



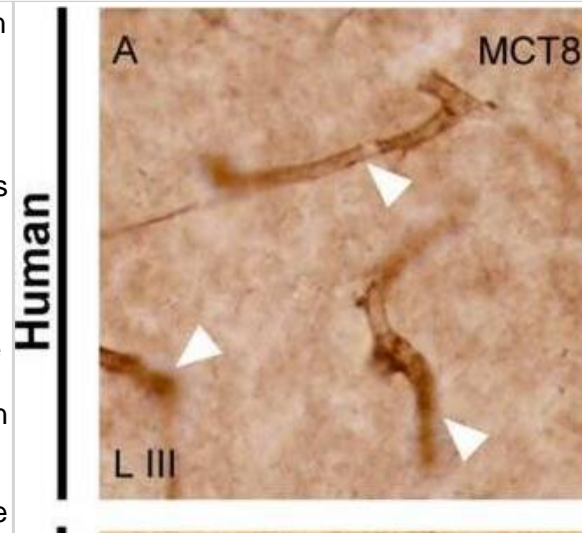
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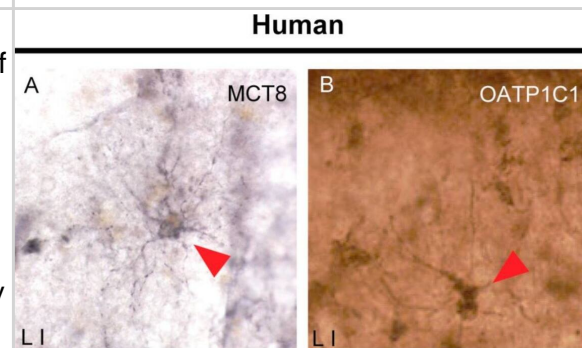
Expression of MCT8 and OATP1C1 in human and macaque motor cortex astrocytes. Representative brightfield (A–E,I) photomicrographs of sections immunostained for MCT8 (A,C) and OATP1C1 (B,D,E,I) in cortical layer I (A–D) and subjacent white matter (E,I). Confocal microscope images of human (F–H) and macaque (J–O) sections double-labeled for OATP1C1 (green) and GFAP (red). Counterstaining with DAPI (blue) shows nuclei of all cells. Note that there is full colocalization of both markers. White and red arrowheads point to astrocytes. Blue arrowheads point to a blood vessel. GFAP: glial fibrillary acidic protein. Scale bar = 50 μm (A–D,J–L), 110 μm (E,I), 25 μm (F–H), and 78 μm (M–O). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/36834621>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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Publications

Ueno M, Chiba Y, Murakami R et Al. Distribution of Monocarboxylate Transporters in Brain and Choroid Plexus Epithelium *Pharmaceutics* 2023-07-31 [PMID: 37631275] (Immunohistochemistry, Human)

T Porst, J Johannes, H Gluschke, R Köhler, S Mehl, P Kühnen, K Renko, WB Minich, S Wiegand, L Schomburg Natural Autoimmunity to the Thyroid Hormone Monocarboxylate Transporters MCT8 and MCT10 *Biomedicines*, 2021-04-30;9(5):. 2021-04-30 [PMID: 33946552] (Immunohistochemistry, Human)

Wang Y, Wang T, Montero-Pedrazuela A et al. Thyroid Hormone Transporters MCT8 and OATP1C1 Are Expressed in Pyramidal Neurons and Interneurons in the Adult Motor Cortex of Human and Macaque Brain *International journal of molecular sciences* 2023-02-06 [PMID: 36834621]

Porst T Detection and physiological role of autoimmunity against thyroid hormone transporters Thesis 2022-01-01 (Human)

Graffunder AS, Paisdzior S, Opitz R Et al. Design and Characterization of a Fluorescent Reporter Enabling Live-cell Monitoring of MCT8 Expression *Experimental and clinical endocrinology & diabetes : official journal, German Society of Endocrinology [and] German Diabetes Association* 2021-08-05 [PMID: 34352913]

Wilpert NM, Krueger M, Opitz R et al. Spatiotemporal Changes of Cerebral Monocarboxylate Transporter 8 Expression *Thyroid* 2020-03-06 [PMID: 32143555] (IF/IHC, Human)





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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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