10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MOT8 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54501

Specification

MOT8 Polyclonal Antibody - Product Information

Application	**WB, E**
Primary Accession	P36021
Reactivity	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**59 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from mouse MOT8/SLC16A2**
Isotype	**IgG**
Purity affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cell membrane; Multi-pass membrane protein**
SIMILARITY	**Belongs to the major facilitator superfamily. Monocarboxylate porter (TC 2.A.1.13) family.**
SUBUNIT	**Homodimer.**
DISEASE	**Defects in SLC16A2 are the cause of monocarboxylate transporter 8 deficiency (MCT8 deficiency) [MIM:300523]; also known as Allan-Herndon-Dudley syndrome (AHDS). MCT8 deficiency consists of a severe form of X-linked psychomotor retardation combined with abnormal thyroid hormone (TH) levels. Thyroid hormone deficiency can be caused by defects of hormone synthesis and action, but it has also been linked to a defect in cellular hormone transport. Affected patients are males with abnormal relative concentrations of three circulating iodothyronines, as well as severe neurological abnormalities, including global developmental delay, central hypotonia, spastic quadriplegia, dystonic movements, rotary nystagmus, and impaired gaze and hearing. Heterozygous females had a milder thyroid phenotype and no neurological defects.**
Important Note	**This product as supplied is intended for research use only, not for use in human,**

therapeutic or diagnostic applications.

Background Descriptions
Very active and specific thyroid hormone transporter. Stimulates cellular uptake of thyroxine (T4), triiodothyronine (T3), reverse triiodothyronine (rT3) and diidothyronine. Does not transport Leu, Phe, Trp or Tyr.

MOT8 Polyclonal Antibody - Additional Information

Gene ID 6567

Other Names
Monocarboxylate transporter 8, MCT 8, Monocarboxylate transporter 7, MCT 7, Solute carrier family 16 member 2, X-linked PEST-containing transporter, SLC16A2, MCT8, XPCT

Target/Specificity
Highly expressed in liver and heart.

Dilution
WB~~1:1000<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

MOT8 Polyclonal Antibody - Protein Information

Name SLC16A2

Function
Specific thyroid hormone transmembrane transporter, that mediates both uptake and efflux of thyroid hormones across the cell membrane independently of pH or a Na(+) gradient. Major substrates are the iodothyronines T3 and T4 and to a lesser extent rT3 and 3,3- diiodothyronine (3,3'-T2) (PubMed:16887882, PubMed:18337592, PubMed:20628049, PubMed:23550058, PubMed:26426690, PubMed:27805744, PubMed:31436139). Acts as an important mediator of thyroid hormone transport, especially T3, through the blood-brain barrier (Probable) (PubMed:28526555).

Cellular Location
Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein

Tissue Location
Highly expressed in liver and heart (PubMed:7981683). In adult brain tissue expression is largely

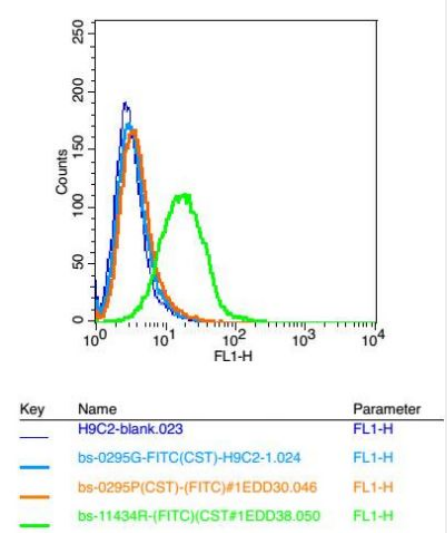
confined to endothelial cells of the blood-brain barrier (at protein level) (PubMed:18687783, PubMed:32143555).

MOT8 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MOT8 Polyclonal Antibody - Images



Positive control: H9C2
Isotype Control Antibody: Rabbit IgG ; Secondary Antibody: Goat anti-rabbit IgG-FITC, Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 3 µg in 100 µL1X PBS containing 0.5% BSA.

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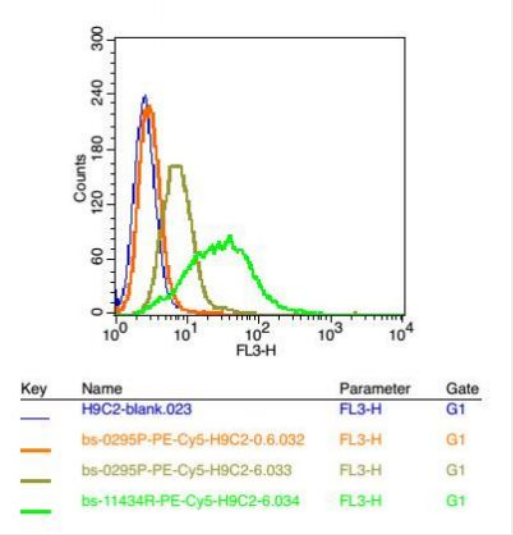
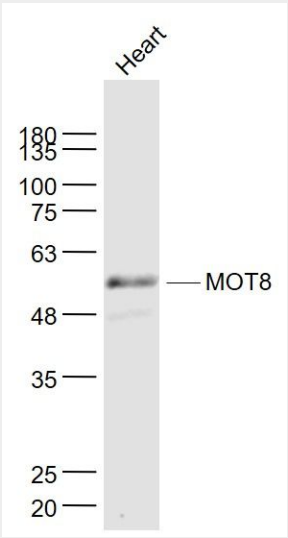


Blank control: H9C2(blue)
Isotype Control Antibody: Rabbit IgG -FITC(orange); Primary Antibody Dilution: 12 µl in 100 µL1X PBS containing 0.5% BSA(green).



Sample:
Heart (Mouse) Lysate at 40 ug
Primary: Anti- MOT8 (bs-11434R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 59 kD
Observed band size: 59 kD