

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

---

**MOT8 Polyclonal Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P36021</a>
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
<b>Purity</b> 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 diiodothyronine. 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  
E~N/A

**Storage**

Store at -20 °C 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 °C.

**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](http://www.uniprot.org/citations/16887882), PubMed:[18337592](http://www.uniprot.org/citations/18337592), PubMed:[20628049](http://www.uniprot.org/citations/20628049), PubMed:[23550058](http://www.uniprot.org/citations/23550058), PubMed:[26426690](http://www.uniprot.org/citations/26426690), PubMed:[27805744](http://www.uniprot.org/citations/27805744), PubMed:[31436139](http://www.uniprot.org/citations/31436139)). Acts as an important mediator of thyroid hormone transport, especially T3, through the blood-brain barrier (Probable) (PubMed:[28526555](http://www.uniprot.org/citations/28526555)).

**Cellular Location**

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

**Tissue Location**

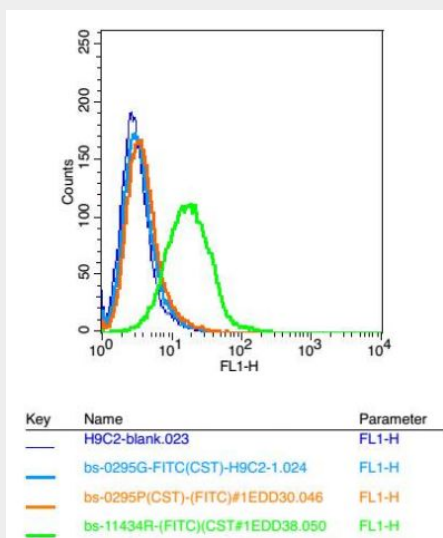
Highly expressed in liver and heart (PubMed:7981683). In adult brain tissue expression is largely confined to endothelial cells of the blood-brain barrier (at protein level) (PubMed:18687783, PubMed:32143555).

## MOT8 Polyclonal Antibody - Protocols

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

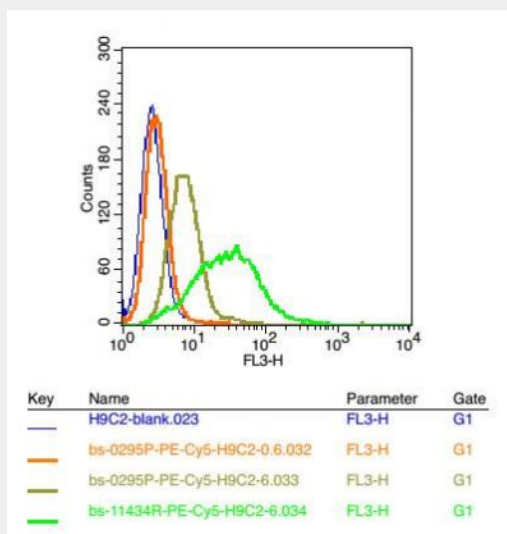
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## MOT8 Polyclonal Antibody - Images



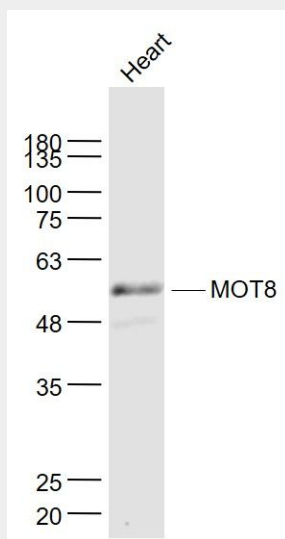
Positive control: H9C2

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  $\mu$ g in 100  $\mu$ L 1X PBS containing 0.5% BSA.



Blank control: H9C2(blue)

Isotype Control Antibody: Rabbit IgG -FITC(orange); Primary Antibody Dilution: 12  $\mu$ l in 100  $\mu$ l 1X PBS containing 0.5% BSA(green).



Sample:

Heart (Mouse) Lysate at 40  $\mu$ g

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