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SLC16A3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12397b

Product Information

Application	IHC-P-Leica, WB, E
Primary Accession	O15427
Other Accession	O35910, P57787, NP_001035887.1, NP_001035888.1
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31368
Calculated MW	49469
Antigen Region	433-462

Additional Information

Gene ID	9123
Other Names	Monocarboxylate transporter 4, MCT 4, Solute carrier family 16 member 3, SLC16A3, MCT4
Target/Specificity	This SLC16A3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 433-462 amino acids from the C-terminal region of human SLC16A3.
Dilution	IHC-P-Leica~~1:500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLC16A3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SLC16A3
Synonyms	MCT3 {ECO:0000303|PubMed:9425115}, MCT4

Function	Proton-dependent transporter of monocarboxylates such as L- lactate and pyruvate (PubMed:11101640, PubMed:23935841, PubMed:31719150). Plays a predominant role in L-lactate efflux from highly glycolytic cells (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Note=Plasma membrane localization is dependent upon the BSG/MCT4 interaction (PubMed:10921872). Basolateral sorting signals (BLSS) in C-terminal cytoplasmic tail ensure its basolateral expression in polarised epithelial cells (PubMed:21199217)
Tissue Location	Highly expressed in skeletal muscle.

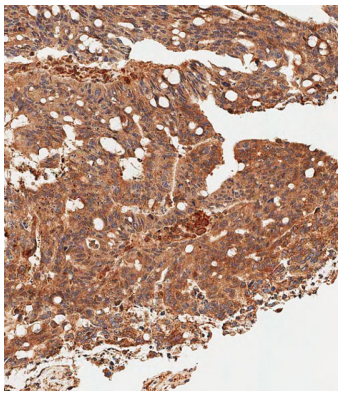
Background

Lactic acid and pyruvate transport across plasma membranes is catalyzed by members of the proton-linked monocarboxylate transporter (MCT) family, which has been designated solute carrier family-16. Each MCT appears to have slightly different substrate and inhibitor specificities and transport kinetics, which are related to the metabolic requirements of the tissues in which it is found. The MCTs, which include MCT1 (SLC16A1; MIM 600682) and MCT2 (SLC16A7; MIM 603654), are characterized by 12 predicted transmembrane domains (Price et al., 1998 [PubMed 9425115]).

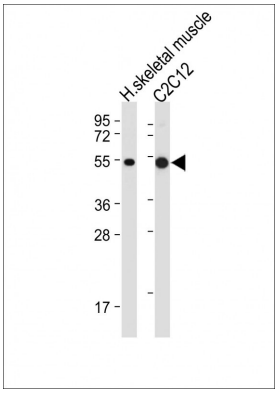
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Vellonen, K.S., et al. Eur J Pharm Sci 39(4):241-247(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Wang, Q., et al. Drug Metab. Dispos. 35(8):1393-1399(2007)
Olsen, J.V., et al. Cell 127(3):635-648(2006)

Images



Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue using AP12397b performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



All lanes : Anti-SLC16A3 Antibody (C-term) at 1:2000 dilution Lane 1: Human skeletal muscle tissue lysate Lane 2: C2C12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.