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

AWAT2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10826B

Product Information

Application	WB, IHC-P, E
Primary Accession	Q6E213
Other Accession	NP_001002254.1
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28720
Calculated MW	38094
Antigen Region	303-331

Additional Information

Gene ID	158835
Other Names	Acyl-CoA wax alcohol acyltransferase 2, Acyl-CoA retinol O-fatty-acyltransferase, ARAT, Retinol O-fatty-acyltransferase, Diacylglycerol O-acyltransferase 2-like protein 4, Diacylglycerol O-acyltransferase candidate 4, hDC4, Long-chain-alcohol O-fatty-acyltransferase 2, Multifunctional O-acyltransferase, Wax synthase, hWS, AWAT2, DC4, DGAT2L4, MFAT, WS
Target/Specificity	This AWAT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 303-331 amino acids from the C-terminal region of human AWAT2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	AWAT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AWAT2

Synonyms	DC4, DGAT2L4, MFAT {ECO:0000303|PubMed:1
Function	Acyltransferase that catalyzes the formation of ester bonds between fatty alcohols and fatty acyl-CoAs to form wax monoesters (PubMed:15220349, PubMed:15671038, PubMed:16106050, PubMed:28420705). Shows a preference for medium chain acyl-CoAs from C12 to C16 in length and fatty alcohols shorter than C20, as the acyl donors and acceptors, respectively (PubMed:15220349, PubMed:15671038). Also possesses acyl- CoA retinol acyltransferase (ARAT) activity that preferentially esterifies 11-cis-retinol, a chromophore precursor of bleached opsin pigments in cone cells (PubMed:16106050, PubMed:24799687). Shows higher catalytic efficiency toward 11-cis-retinol versus 9-cis-retinol, 13- cis-retinol, and all-trans-retinol substrates (PubMed:24799687).
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q6E1M8}; Multi-pass membrane protein
Tissue Location	Highly expressed in skin, where it is primarily restricted to undifferentiated peripheral sebocytes. Also expressed at lower level in other tissues except pancreas

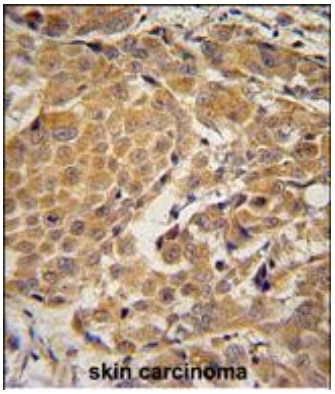
Background

This gene encodes an enzyme belonging to the diacylglycerol acyltransferase family. This enzyme produces wax esters by the esterification of long chain (or wax) alcohols with acyl-CoA-derived fatty acids. It functions in lipid metabolism in the skin, mostly in undifferentiated peripheral sebocytes. This enzyme may also have acyl-CoA:retinol acyltransferase activities, where it catalyzes the synthesis of diacylglycerols and retinyl esters.

References

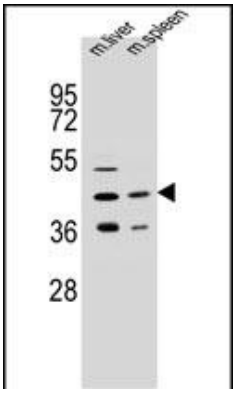
Holmes, R.S. Comp. Biochem. Physiol. Part D Genomics Proteomics 5(1):45-54(2010)
Yen, C.L., et al. J. Lipid Res. 46(11):2388-2397(2005)
Turkish, A.R., et al. J. Biol. Chem. 280(15):14755-14764(2005)
Cheng, J.B., et al. J. Biol. Chem. 279(36):37798-37807(2004)
Winter, A., et al. Cytogenet. Genome Res. 102 (1-4), 42-47 (2003) :

Images



AWAT2 Antibody (C-term) (Cat. #AP10826b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skin carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the AWAT2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

AWAT2 Antibody (C-term) (Cat. #AP10826b) western blot analysis in mouse liver,spleen tissue lysates (35ug/lane).This demonstrates the AWAT2 antibody detected the AWAT2 protein (arrow).



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