

AWAT2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10826B

Specification

AWAT2 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW Antigen Region WB, IHC-P,E <u>O6E213</u> <u>NP_001002254.1</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 38094 303-331

AWAT2 Antibody (C-term) - 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~~1:50~100 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

AWAT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

AWAT2 Antibody (C-term) - 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:<u>15220349</u>, PubMed:<u>15671038</u>, PubMed:<u>16106050</u>, PubMed:<u>28420705</u>). 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:<u>15220349</u>, PubMed:<u>15671038</u>). 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:<u>16106050</u>, PubMed:<u>24799687</u>). Shows higher catalytic efficiency toward 11-cis-retinol versus 9-cis-retinol, 13- cis-retinol, and all-trans-retinol substrates (PubMed:<u>24799687</u>).

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

AWAT2 Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>

AWAT2 Antibody (C-term) - Images



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).





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) - 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.

AWAT2 Antibody (C-term) - 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) :