PRODUCT INFORMATION



HHATL Polyclonal Antibody

Item No. 15648

Overview and Properties

Contents: This vial contains 500 µl of peptide affinity-purified polyclonal antibody.

C3orf3, Glycerol Uptake Transporter Homolog, GUP1, Synonyms:

Hedgehog Acyltransferase-like Protein, KIAA1173, MBOAT3, MSTP002, OACT3, Protein-Cysteine N-Palmitoyltransferase HHAT-like Protein

Synthetic peptide from the C-terminal region of human HHAT Immunogen:

Species Reactivity: (+) Human HHATL; other species not tested

Uniprot No.: Q9HCP6 Liquid Form:

-20°C (as supplied) Storage:

Stability: ≥3 years

PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide Storage Buffer:

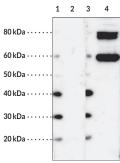
Host:

Applications: Flow cytometry (FC), immunofluorescence (IF), and Western blot (WB); the

> recommended starting dilution for FC and IF is 1:100 and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should

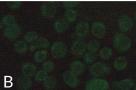
be determined empirically.

Images

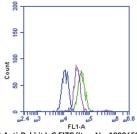


Lane 2: RT-4 cell lysates (40 µg) + 10 µg/ml immunizing peptide Lane 3: MW Markers Lane 4: RT-4 cell lysates (40 µg)





Immunofluorescent staining of RT-4 cells. RT-4 cells were fixed with cytospin, washed with 95% ethanol, and blocked with 1% fetal bovine serum. Cells were probed with the indicated antibodies, washed between steps, and images were captured using a Leica DMIL inverted fluorescence microscope (40X objective). Panel A: Control secondary antibody alone Panel B: HHATL Polyclonal



Goat Anti-Rabbit IgG FITC (Item No. 10006588) (1:200) Purple: HHATL Polyclonal Antibody (1:100) Green: HHATL Polyclonal Antibody (1:50)
RT-4 cells were fixed with 4% formaldehyde and permeabilized with

Cayman permeabilization buffer, followed by blocking with 1% fetal bovine serum. Cells were probed with indicated antibodies, washed between steps, and fluorescence was detected with a BD Accuri C6 flow cytometer.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Hedgehog acyltransferase-like (HHATL) is the mammalian homolog of yeast Gup1 that is encoded by the *HHATL* gene in humans.¹ HHATL is a membrane-bound O-acyltransferase (MBOAT) superfamily member and contains multiple transmembrane domains common to this family but lacks acyltransferase function due to a single amino acid substitution of histidine for leucine at position 447.^{1,2} It is localized to the endoplasmic reticulum (ER) and is expressed in the heart, skeletal muscle, and brain.^{1,3,4} HHATL colocalizes with sonic hedgehog (Shh) and is a negative regulator of Shh N-terminal palmitoylation, a post-translational modification that is critical for Shh signaling in neural development and embryogenesis.³ *Hhatl*-/- neonatal mice fail to develop proper suckling ability, leading to malnutrition and death by postnatal day 14.⁵ *HHATL* expression is decreased in six nasopharyngeal carcinoma cell lines, as well as in tissue isolated from patients with nasopharyngeal carcinoma or skin squamous cell carcinoma.^{6,7} Cayman's HHATL Polyclonal Antibody can be used for flow cytometry (FC), immunofluorescence (IF), and Western blot applications. The antibody recognizes HHATL at ~60 kDa from human samples.

References

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- Chang, C.C.Y., Sun, J., and Chang, T.Y. Membrane-bound O-acyltransferases (MBOATs). Front. Biol. 6(3), 177-182 (2011).
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- 5. Van, B., Nishi, M., Komazaki, S., et al. Mitsugumin 56 (hedgehog acyltransferase-like) is a sarcoplasmic reticulum-resident protein essential for postnatal muscle maturation. FEBS Lett. 589(10), 1095-1104 (2015).
- 6. Zhang, S.-Q., Peng, H., Song, L.-Y., et al. Detection of KIAA1173 gene expression in nasopharyngeal carcinoma tissues and cell lines on tissue microarray. Ai Zheng 24(11), 1322-1326 (2005).
- 7. Zhang, S.-Q., Tian, X., Luo, Y.-W., et al. Expression, clinical and pathological significance of KIAA1173 gene in skin squamous cell carcinoma. *Zhonghua Yi Xue Za Zhi* **90(18)**, 1243-1246 (2010).

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