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HSL/LIPE Rabbit pAb

Catalog # AP99262

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P15304
Other Accession	P15304
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	116812
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from rat HSL
Epitope Specificity	261-360/1068
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the 'GDXG' lipolytic enzyme family.
SUBUNIT	Interacts with PTRF in the adipocyte cytoplasm.
Post-translational modifications	Phosphorylation by AMPK may block translocation to lipid droplets.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	HSL/LIPE is found in adipose tissue and heart, where it primarily hydrolyzes stored triglycerides to free fatty acids. It is also found in steroidogenic tissues, where it principally converts cholesteryl esters to free cholesterol for steroid hormone production. There are two named isoforms.

Additional Information

Gene ID	25330
Other Names	AOMS4; FPLD6; HSL; LHS; REH; 4933403G17Rik; LIPS_HUMAN; LIPE; Monoacylglycerol lipase LIPE; Retinyl ester hydrolase (REH); 3.1.1.79; Q6NSL7_HUMAN; LIPS_MOUSE; LIPS_RAT; lipase E, hormone sensitive type; lipase, hormone-sensitive
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

Protein Information

Name	Lipe
Function	Lipase with broad substrate specificity, catalyzing the hydrolysis of triacylglycerols (TAGs), diacylglycerols (DAGs), monoacylglycerols (MAGs), cholesteryl esters and retinyl esters (PubMed:10694408, PubMed:6643478, PubMed:9162045). Shows a preferential hydrolysis of DAGs over TAGs and MAGs and preferentially hydrolyzes the fatty acid (FA) esters at the sn-3 position of DAGs (By similarity). Preferentially hydrolyzes fatty acids at the sn-1 and sn-2 positions of TAGs (PubMed:6643478). Catalyzes the hydrolysis of 2- arachidonoylglycerol, an endocannabinoid and of 2-acetyl monoalkylglycerol ether, the penultimate precursor of the pathway for de novo synthesis of platelet-activating factor (By similarity). In adipose tissue and heart, it primarily hydrolyzes stored triglycerides to free fatty acids, while in steroidogenic tissues, it principally converts cholesteryl esters to free cholesterol for steroid hormone production (PubMed:1770312).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q05469}. Membrane, caveola {ECO:0000250|UniProtKB:Q05469}. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q05469}. Lipid droplet. Note=Found in the high-density caveolae (By similarity). Translocates to the cytoplasm from the caveolae upon insulin stimulation (By similarity). Phosphorylation by AMPK reduces its translocation towards the lipid droplets {ECO:0000250|UniProtKB:Q05469, ECO:0000269|PubMed:15878856}
Tissue Location	Highly expressed in the adipose tissue (PubMed:1770312). Also expressed in the heart, adrenal gland and testis (PubMed:1770312, PubMed:8812477).

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