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HSL/LIPE Rabbit pAb

HSL/LIPE Rabbit pAb
Catalog # AP93926

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q05469
Reactivity	Rat
Predicted	Human, Mouse, Pig, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	116598
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HSL/LIPE
Epitope Specificity	441-540/1076
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane. Membrane, caveola. Cytoplasm,bcytosol. Note=Found in the high-density caveolae. Translocates to the cytoplasm from the caveolae upon insulin stimulation.
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	3991
Other Names	Hormone-sensitive lipase, HSL, 3.1.1.79, Monoacylglycerol lipase LIPE, 3.1.1.23, Retinyl ester hydrolase, REH, LIPE
Dilution	IHC-P=1:400-800,IHC-F=1:400-800,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.

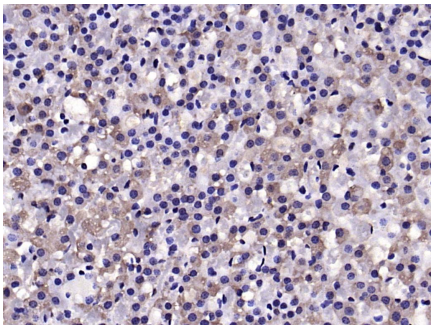
Protein Information

Name	LIPE
Function	Lipase with broad substrate specificity, catalyzing the hydrolysis of triacylglycerols (TAGs), diacylglycerols (DAGs), monoacylglycerols (MAGs), cholesteryl esters and retinyl esters (PubMed:15716583, PubMed:15955102, PubMed:19800417, PubMed:8812477). Shows a preferential hydrolysis of DAGs over TAGs and MAGs and preferentially hydrolyzes the fatty acid (FA) esters at the sn-3 position of the glycerol backbone in DAGs (PubMed:19800417). Preferentially hydrolyzes FA esters at the sn-1 and sn-2 positions of the glycerol backbone in TAGs (By similarity). 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 (By similarity).
Cellular Location	Cell membrane. Membrane, caveola. Cytoplasm, cytosol. Lipid droplet {ECO:0000250|UniProtKB:P54310}. Note=Found in the high-density caveolae. Translocates to the cytoplasm from the caveolae upon insulin stimulation (PubMed:17026959). Phosphorylation by AMPK reduces its translocation towards the lipid droplets (By similarity) {ECO:0000250|UniProtKB:P54310, ECO:0000269|PubMed:17026959}
Tissue Location	Testis..

Background

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.

Images



Paraformaldehyde-fixed, paraffin embedded (rat adrenal gland); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HSL) Polyclonal Antibody, Unconjugated (AP93926) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.