

PLIN5 (10J6) Mouse Monoclonal antibody

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Product Information

Application WB, IHC
Primary Accession Q00G26
Reactivity Human
Clonality Monoclonal
Calculated MW 50791

Additional Information

Gene ID 440503

Other Names Perilipin-5, Lipid storage droplet protein 5, PLIN5, LSDP5, OXPAT, PAT-1

Dilution WB~~1:1000 IHC~~1:100~500

Storage Conditions -20°C

Protein Information

Name PLIN5

Synonyms LSDP5, OXPAT, PAT-1

Function Lipid droplet-associated protein that maintains the balance between

lipogenesis and lipolysis and also regulates fatty acid oxidation in oxidative tissues. Recruits mitochondria to the surface of lipid droplets and is involved in lipid droplet homeostasis by regulating both the storage of fatty acids in the form of triglycerides and the release of fatty acids for mitochondrial fatty acid oxidation. In lipid droplet triacylglycerol hydrolysis, plays a role as a scaffolding protein for three major key lipolytic players: ABHD5, PNPLA2 and LIPE. Reduces the triacylglycerol hydrolase activity of PNPLA2 by recruiting and sequestering PNPLA2 to lipid droplets. Phosphorylation by PKA enables lipolysis probably by promoting release of ABHD5 from the perilipin scaffold and by facilitating interaction of ABHD5 with PNPLA2. Also increases lipolysis through interaction with LIPE and upon PKA-mediated phosphorylation of

LIPE (By similarity).

Cellular Location Lipid droplet. Cytoplasm {ECO:0000250 | UniProtKB:Q8BVZ1}. Mitochondrion

{ECO:0000250|UniProtKB:M0R7Z9}. Note=Lipid droplet surface-associated

Exchanges between lipid droplets and the cytoplasm

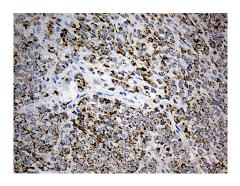
{ECO:0000250|UniProtKB:Q8BVZ1}

Tissue Location Expressed in skeletal muscle, liver, heart and kidney.

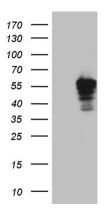
Background

Members of the perilipin family, such as PLIN5, coat intracellular lipid storage droplets and protect them from lipolytic degradation (Dalen et al., 2007 [PubMed 17234449]). [supplied by OMIM, Feb 2010]

Images



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue tissue using anti-PLIN5 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, AP93850) (1:500)



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PLIN5 (Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PLIN5 (Cat# AP93850)(1:2000). Positive lysates (100ug) and (20ug) can be purchased separately from biodragon.

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