

Product datasheet for **AM09128SU-N**

Perilipin-1 (PLIN1) Mouse Monoclonal Antibody [Clone ID: PERI112.17]

Product data:

Product Type:	Primary Antibodies
Clone Name:	PERI112.17
Applications:	IF, IHC, WB
Recommended Dilution:	Immunoblotting. Immunofluorescence. Immunohistochemistry on Frozen Sections: Ready to use. Immunohistochemistry on Paraffin Sections: Ready to use (Microwave). <i>Incubation Time:</i> 1 h at RT.
Reactivity:	Bovine, Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide of Perilipin (duplicated N-terminus of Perilipin, aa 1-20 <i>cf. Greenberg et al.</i> 1992, JBC 266, 11341-11346).
Specificity:	The antibody reacts specifically with all Perilipin variants located at the surface of intracellular storage lipid droplets present e.g. in the adrenal gland, sebaceous gland, adipocytes of white and brown adipose tissue and cultured cells such as 3T3-L1 adipocytes and cultured steroidogenic adrenal cortical and Leydig cells. It also is a useful pathological marker for steatogenesis e.g. in liver. It does not cross-react with Adipophilin (ADRP) or TIP47 proteins (or additional members of the PAT-family, e.g. MLDP or OXPAT/PAT-1, LSDP5). Tested Reactivities on Cultured Cell Lines Several Human carcinoma cell lines; 3T3-L1 adipocytes.
Formulation:	State: Supernatant State: Liquid Hybridoma Culture Supernatant Preservative: 0.09% Sodium Azide
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.



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Stability:	Shelf life: one year from despatch.
Gene Name:	perilipin 1
Database Link:	Entrez Gene 25629 RatEntrez Gene 103968 MouseEntrez Gene 5346 Human O60240
Background:	<p>Perilipins, members of the PAT protein family (named after lipid droplet proteins Perilipin, Adipophilin, and TIP47) are found exclusively at the surface of lipid droplets in adipocytes and steroidogenic cells. They have been suggested to function as regulators of lipolysis and triacylglycerol storage within adipose tissue. Four distinct isoforms ranging from perilipin A (57 kDa) to perilipin D (26 kDa) have been identified and they share an identical amino terminal sequences, and contain 2–6 consensus protein kinase A (PKA) phosphorylation sites. Perilipin C and D have been detected only in steroidogenic cells. Perilipin A is the most abundant form on the lipid droplets of adipocytes. The phosphorylation of perilipin by PKA, which is accompanied by the phosphorylation and translocation of hormone-sensitive lipase from the cytosol to the lipid droplets, promotes lipolysis. There is evidence for the presence of perilipin A in atheroma plaques suggesting that the protein may be involved in the development oftherosclerosis by controlling as in adipocytes the hydrolysis of stored lipids. Adipose tissue is an energy reserve in animals and is strictly regulated in nondomestic species. Adipose cells produce and secrete numerous physiologically important proteins, such as lipoprotein lipase (LPL), leptin, adipocyte complement related protein of 30 kDa (Acrp30), resistin, and Perilipin. Perilipin is an intracellular neutral lipid droplet protein that is hormonally regulated. This protein is localized exclusively to the surface of lipid droplets. In response to lypotic stimuli, Perilipin is phosphorylated by protein kinase A. Once activated, Perilipin has inhibitory affects upon hormone-sensitive lipase (HSL), a protein that mediates the hydrolysis of triacylglycerol, the major form of stored energy in the body. Perilipin expression is limited to adipocytes and steroidogenic cells. There are currently two known isoforms, Perilipin A and B. Both of these proteins are encoded by a single-copy gene and are the result of differential splicing events.</p>
Synonyms:	Perilipin, PLIN, PLIN1, PLIN-1, PERI
Protein Families:	Druggable Genome
Protein Pathways:	PPAR signaling pathway