

Product datasheet

anti-Perilipin 1 (N-terminus) mouse monoclonal, PERI 112.17, supernatant

Short overview

Cat. No.	651156_1
Quantity	5 ml

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	PERI 112.17
Immunogen	Synthetic peptide of perilipin / PLIN1 (duplicated N-terminus of perilipin; aa 1-20)
Formulation	Contains 0.09% sodium azide
UniprotID	O60240 (Human), Q8CGN5 (Mouse)
Synonym	Perilipin-1, Lipid droplet-associated protein, PLIN1, PERI, PLIN
Conjugate	Unconjugated
Purification	Hybridoma cell culture supernatant
Storage	Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ICC/IF, IHC
Reactivity	Human, Mouse

Applications

Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	Ready-to-use
Immunohistochemistry (IHC) - paraffin	Ready-to-use (microwave treatment recommended)

Background

Perilipins build a family of phosphoproteins. The predominant forms in adipocytes, PLIN1 A and B arise by alternative RNA splicing from a single gene, generating polypeptides of 57 kDa and 46 kDa, respectively. The N-terminus, however, remains unchanged.

The antibody reacts specifically with all PLIN1 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 is also a useful pathological marker for steatogenesis e.g. in liver. It does not cross-react with adipophilin (ADRP, also named PLIN2) or TIP47 (also named PLIN3) proteins (or additional members of the PLIN/PAT-family, e.g. MLDP or OXPAT/PAT-1, also named PLIN5 or LSDP5).

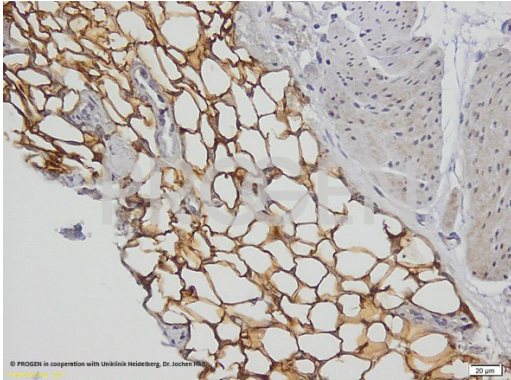
Tested reactivity on cultured cell lines: several human carcinoma cell lines; 3T3-L1 adipocytes.

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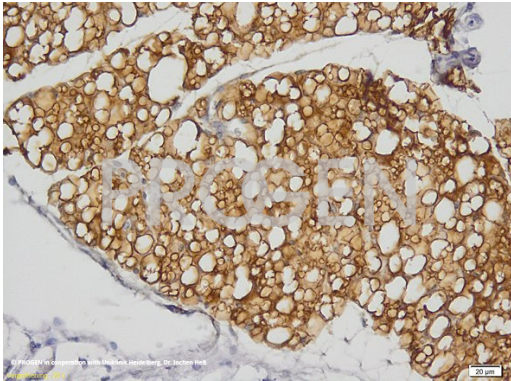
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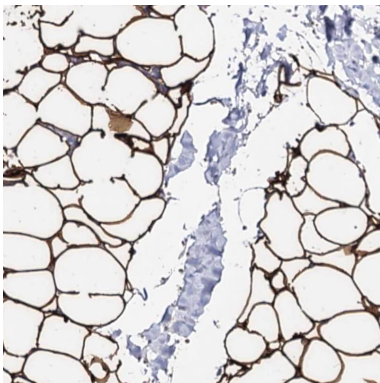
Product images



Mouse fat tissue (courtesy of J.Heß, University Hospital Heidelberg)



Mouse fat tissue (courtesy of J.Heß, University Hospital Heidelberg)



Perilipin 1 staining on human adipose tissue (courtesy of The Human Protein Atlas, www.proteinatlas.org, Thul PJ et al, 2017. A subcellular map of the human proteome. Science)

References

Publication	Species	Application
Combot, Y. et al. Seipin localizes at endoplasmic-reticulum-mitochondria contact sites to control mitochondrial calcium import and metabolism in adipocytes. Cell Rep. 38, (2022).	Mouse	PLA
Nishimoto, K. et al. Dynamics of vitamin A uptake, storage, and utilization in vocal fold mucosa. Mol Metab. 40, 101025(2020).	rat	IHC (frozen)/IF
Wada, S. et al. Submucosal fat accumulation in human colorectal tissue and its association with abdominal obesity and insulin resistance. United.European.Gastroenterol.J. 6, 1065-1073 (2018).	human	IHC (paraffin)
Pourteymour, S. et al. Perilipin 4 in human skeletal muscle: localization and effect of physical activity. Physiol. Rep. 3, (2015).	human	IHC (paraffin)
Heid, H. et al. On the formation of lipid droplets in human adipocytes: the organization of the perilipin-vimentin cortex. PLoS One 9, e90386 (2014).	human	WB,ICC-IF