

## Product datasheet

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

### Short overview

|                 |          |
|-----------------|----------|
| <b>Cat. No.</b> | 651156_1 |
| <b>Quantity</b> | 5 ml     |

### Product description

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

### Applications

|                                              |                                                |
|----------------------------------------------|------------------------------------------------|
| <b>Immunocytochemistry (ICC)</b>             | Assay dependent                                |
| <b>Immunohistochemistry (IHC) - frozen</b>   | Ready-to-use                                   |
| <b>Immunohistochemistry (IHC) - paraffin</b> | 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).

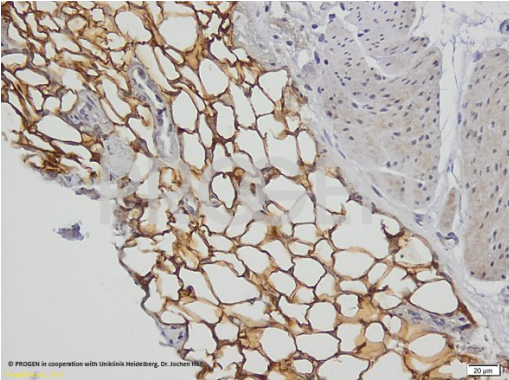
Tested reactivity on cultured cell lines: several human carcinoma cell lines; 3T3-L1 adipocytes.

PROGEN Biotechnik GmbH | Maaßstraße 30 | D-69123 Heidelberg

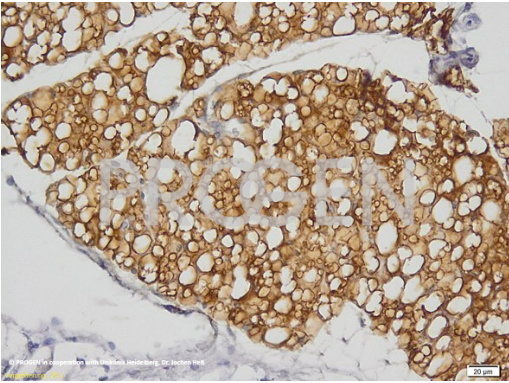
Tel.: +49 (0) 6221 8278-0 | Fax: +49 (0) 6221 8278-24 | Email: [info@progen.com](mailto:info@progen.com) | Web: [www.progen.com](http://www.progen.com)

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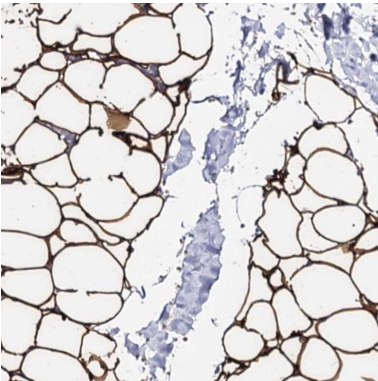
## Product images



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](http://www.proteinatlas.org), Thul PJ et al, 2017. A subcellular map of the human proteome. Science)

## References

| Publication                                                                                                                                                                                                     | Species | Application     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------|
| <a href="#">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).</a>              | Mouse   | PLA             |
| <a href="#">Nishimoto, K. et al. Dynamics of vitamin A uptake, storage, and utilization in vocal fold mucosa. Mol Metab. 40, 101025(2020).</a>                                                                  | rat     | IHC (frozen)/IF |
| <a href="#">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).</a> | human   | IHC (paraffin)  |
| <a href="#">Pourteymour, S. et al. Perilipin 4 in human skeletal muscle: localization and effect of physical activity. Physiol. Rep. 3, (2015).</a>                                                             | human   | IHC (paraffin)  |
| <a href="#">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).</a>                                           | human   | WB,ICC-IF       |