

## Product datasheet

### anti-Perilipin 5 (N-terminus) guinea pig polyclonal, serum

#### Short overview

|                 |        |
|-----------------|--------|
| <b>Cat. No.</b> | GP44   |
| <b>Quantity</b> | 100 µl |

#### Product description

|                      |   |
|----------------------|---|
| <b>Host</b>          | Guinea pig  |
| <b>Antibody Type</b> | Polyclonal  |
| <b>Immunogen</b>     | Synthetic peptides (N-terminal aa 1-17/16-36 of human MLDP)                           |
| <b>Formulation</b>   | Contains 0.09% sodium azide and 0.5% BSA  |
| <b>UniprotID</b>     | Q00G26 (Human)  |
| <b>Synonym</b>       | Perilipin-5, Lipid storage droplet protein 5, PLIN5, LSDP5, OXPAT, PAT-1              |
| <b>Note</b>          | Centrifuge prior to opening   |
| <b>Conjugate</b>     | Unconjugated  |
| <b>Purification</b>  | Stabilized antiserum  |
| <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   |

#### Applications

|  |   |
|--|---|
| <b>Immunocytochemistry (ICC)</b>             | Assay dependent                               |
| <b>Immunohistochemistry (IHC) - frozen</b>   | 1:100-1:200                                   |
| <b>Immunohistochemistry (IHC) - paraffin</b> | 1:100-1:200 (microwave treatment recommended) |

#### Background

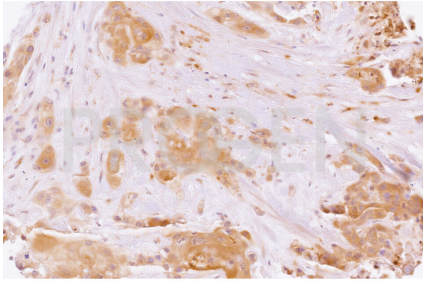
Polypeptide reacting: MLDP = myocardial lipid droplet protein (also described as OXPAT/PAT-1 and perilipin 5 or PLIN5), MW 50,844 (calculated from aa sequence data); apparent Mr 52,000 (after SDS-PAGE). MLDP / PLIN5 pertains to the PLIN/PAT-family proteins, covering the surface of cytoplasmic lipid droplets and sharing a homologous domain called PAT. Additional PLIN/PAT proteins include adipophilin (ADRP, PLIN2), perilipin (PLIN1), and TIP47 (PLIN3) which are expressed in differentiation-related stages of lipid metabolism.

No cross-reactivity with additional PLIN/PAT proteins (including adipophilin/ADRP/PLIN2, perilipin/PLIN1, and TIP47/PLIN3) which are expressed in differentiation-related stages of lipid metabolism.

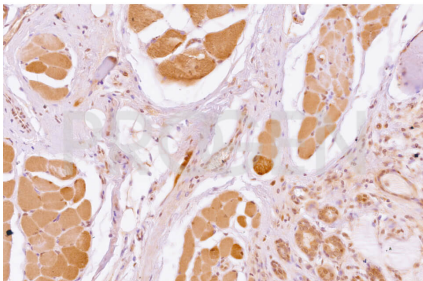
Tissue localization: MLDP/PLIN5 is positively detected in heart and skeletal muscle.

Reactivity on cultured cell lines: HaCat (human), SV80 (human).

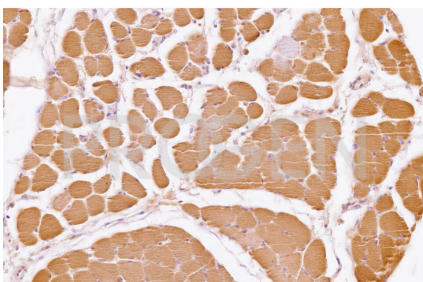
## Product images



IHC analysis of human squamous cell carcinoma using anti-Perilipin 5 antibody (Cat. No. GP44). IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Perilipin 5 (Cat. No. GP44) was diluted in PBS (1:200) and incubated at 4°C over-night. The secondary antibody biotin anti-guinea pig was incubated for 30 min at RT. Sections were incubated with ABC solution (VectorLaboratories) for 30 min at RT. Slides were stained with DAB solution until a brown staining is visible and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J.Hess, University Hospital Heidelberg).



IHC analysis of human skeletal muscle using anti-Perilipin 5 antibody (Cat. No. GP44). IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Perilipin 5 (Cat. No. GP44) was diluted in PBS (1:200) and incubated at 4°C over-night. The secondary antibody biotin anti-guinea pig was incubated for 30 min at RT. Sections were incubated with ABC solution (VectorLaboratories) for 30 min at RT. Slides were stained with DAB solution until a brown staining is visible and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J.Hess, University Hospital Heidelberg).



IHC analysis of human muscle using anti-Perilipin 5 antibody (Cat. No. GP44). IHC was performed on formalin fixed paraffin embedded sections. The samples were deparaffinized with xylol and ethanol followed by heat induced antigen retrieval with 10 mM citrate buffer. After preparation the tissue was blocked with normal serum for 20 min at RT. The primary antibody anti-Perilipin 5 (Cat. No. GP44) was diluted in PBS (1:200) and incubated at 4°C over-night. The secondary antibody biotin anti-guinea pig was incubated for 30 min at RT. Sections were incubated with ABC solution (VectorLaboratories) for 30 min at RT. Slides were stained with DAB solution until a brown staining is visible and with Haemalaun for a few minutes. The 20x picture was acquired using microscopy (courtesy of J.Hess, University Hospital Heidelberg).

## References

| Publication  | Species | Application |
|--|---------|-------------|
| <a href="#">Najt C. P. et al. Organelle interactions compartmentalize hepatic fatty acid trafficking and metabolism., Cell Rep, 42, 112435, (2023).</a>  | Mouse   | WB          |
| <a href="#">Griffin, J. D., Bejarano, E., Wang, X. D. &amp; Greenberg, A. S. Integrated action of autophagy and adipose tissue triglyceride lipase ameliorates diet-induced hepatic steatosis in liver-specific plin2 knockout mice. Cells 10, (2021).</a> | mouse   | WB          |
| <a href="#">Heid, H. et al. Lipid droplets, perilipins and cytokeratins--unravelling liaisons in epithelium-derived cells. PLoS One 8, (2013).</a>   | human   | WB,ICC-IF   |