

## Product datasheet

### anti-Perilipin 3 mouse monoclonal, 49.19, supernatant

#### Short overview

|                 |        |
|-----------------|--------|
| <b>Cat. No.</b> | 651168 |
| <b>Quantity</b> | 5 ml   |

#### Product description

|                      |                                                                                                                                                                                                                                |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Host</b>          | Mouse                                                                                                                                                                                                                          |
| <b>Antibody Type</b> | Monoclonal                                                                                                                                                                                                                     |
| <b>Isotype</b>       | IgG1                                                                                                                                                                                                                           |
| <b>Clone</b>         | 49.19                                                                                                                                                                                                                          |
| <b>Immunogen</b>     | Recombinant polypeptide of human TIP47 / PP17 / PLIN3                                                                                                                                                                          |
| <b>Formulation</b>   | Contains 0.09% sodium azide                                                                                                                                                                                                    |
| <b>UniprotID</b>     | Q3SX32 (Bovine),O60664 (Human),Q9DBG5 (Mouse),M0RA08 (Rat)                                                                                                                                                                     |
| <b>Synonym</b>       | Perilipin-3, 47 kDa mannose 6-phosphate receptor-binding protein, 47 kDa MPR-binding protein, Cargo selection protein TIP47, Mannose-6-phosphate receptor-binding protein 1, Placental protein 17, PP17, PLIN3, M6PRBP1, TIP47 |
| <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>   | IHC, WB                                                                                                                                                                                                                        |
| <b>Reactivity</b>    | Bovine, Human, Mouse, Rat                                                                                                                                                                                                      |

#### Applications

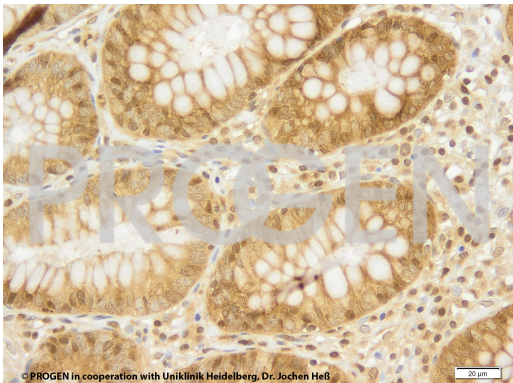
|                                              |                                                                                                              |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Immunohistochemistry (IHC) - frozen</b>   | Undiluted - 1:10 (also after fixation with 2% PFA)                                                           |
| <b>Immunohistochemistry (IHC) - paraffin</b> | Undiluted - 1:10 (microwave treatment recommended)                                                           |
| <b>Western Blot (WB)</b>                     | Assay dependent (avoid use of milk proteins (e.g. dry milk preparations) in blocking and incubation buffers) |

#### Background

TIP47 (tail-interacting protein of 47 kDa; also named Perilipin 3, PLIN3) is involved in lipid droplet maturation (see e.g. Bulankina 2003 and 2009). The protein has been localized in milk fat globule membranes of human and bovine origin. It has been described also as a placental protein. Increased amounts of TIP47/PLIN3 are secreted into circulation of cervix carcinoma patients. After radical surgery PLIN3 serum levels are decreased (cf. Than et al. 1999). TIP47/PLIN3 shows about 40% sequence homology to adipophilin (PLIN2). The antibody, however, is specific for TIP47/PLIN3 and does not cross-react with adipophilin (PLIN2) and perilipin (PLIN1) or other proteins of the PLIN/PAT family. Reactivity on cultured cell lines: PLC, A431, HT29, HeLa, SV-80; human pre-adipocytes

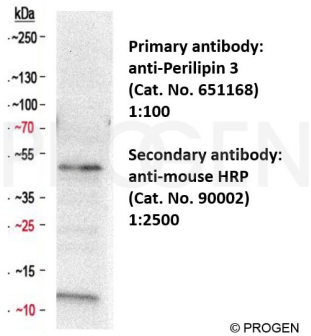
Bulankina, A. V et al. TIP47 functions in the biogenesis of lipid droplets. J. Cell Biol. 185, 641-55 (2009). Bulankina, A. V. TIP47 is recruited to lipid droplets and important for the organelle biogenesis and function. Computing (2003). Than, N. G., Sumegi, B., Than, G. N., Kispal, G. & Bohn, H. Cloning and sequencing of human oncodevelopmental soluble placental tissue protein 17 (PP17): Homology with adipophilin and the mouse adipose, differentiation-related protein. Tumor Biol. 20, 184-192 (1999).

Product images

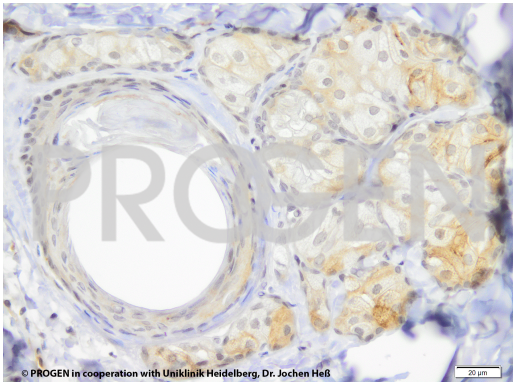


Human colon (courtesy of J.Heß, University Hospital Heidelberg)

THP1 + oleic acid



WB with anti-Perilipin 3 antibody (Cat. No. 651168, 1:100), THP1 cells treated with oleic acid whole cell lysate (8 µg)



Rat tail (courtesy of J.Heß, University Hospital Heidelberg)

## References

| Publication                                                                                                                                        | Species | Application  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|
| <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,IP |