

## Product datasheet

### anti-p62/ SQSTM1 (C-terminus) guinea pig polyclonal, serum

#### Short overview

|                 |        |
|-----------------|--------|
| <b>Cat. No.</b> | GP62-C |
| <b>Quantity</b> | 100 µl |

#### Product description

|                      |                                                                                                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Host</b>          | Guinea pig                                                                                                                                                                          |
| <b>Antibody Type</b> | Polyclonal                                                                                                                                                                          |
| <b>Immunogen</b>     | C-terminal domain (20 amino acids: C-NYD IGA ALD TIQ YSK HPP PL) of human p62 protein, coupled to KLH. This peptide sequence is identical in human, monkey, bovine, mouse, and rat. |
| <b>Formulation</b>   | Contains 0.09% sodium azide                                                                                                                                                         |
| <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>   | IHC, WB                                                                                                                                                                             |
| <b>Reactivity</b>    | Bovine, Human, Mouse, Rat                                                                                                                                                           |

#### Applications

|                                              |                                               |
|----------------------------------------------|-----------------------------------------------|
| <b>Immunohistochemistry (IHC) - frozen</b>   | 1:100-1:600                                   |
| <b>Immunohistochemistry (IHC) - paraffin</b> | 1:100-1:600 (microwave treatment recommended) |
| <b>Western Blot (WB)</b>                     | 1:1,000-1:3,000                               |

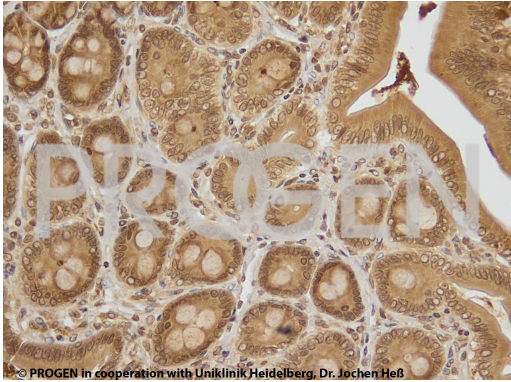
#### Background

Human 62 kDa (p62) protein, is present in intracytoplasmic inclusions (e.g. hyaline bodies) of hepatocellular carcinoma. p62 protein (also described as ubiquitin-binding protein; sequestosome 1; SQSTM1) has been found in many tissues and cells, including lymphoid cells, serving probably a common cellular signal transduction mechanism (e.g. ubiquitin-associated degradation and autophagy). The antiserum stains also neurofibrillary tangles in the brain of patients suffering from Alzheimer's disease.

The GP62-C antibody is knockout validated (Waguri & Komatsu, 2009).

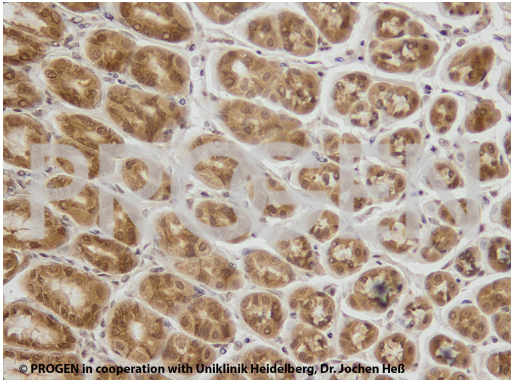
Waguri, S. & Komatsu, M. Chapter 9 Biochemical and Morphological Detection of Inclusion Bodies in Autophagy-Deficient Mice. Methods in Enzymology 453, 181-196 (2009).

#### Product images



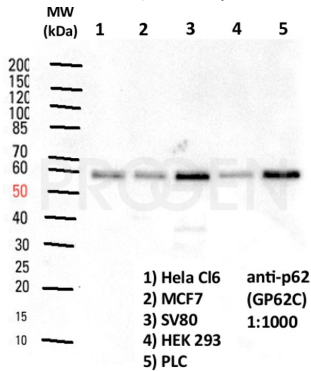
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Rat colon (courtesy of J. Hess, University Hospital Heidelberg)



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Rat stomach (courtesy of J. Hess, University Hospital Heidelberg)



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WB with anti-p62 antibody (Cat. No. GP62-C, 1:1000) on different human cell lines

## References

| Publication                                                                                                                                                                                                | Species      | Application |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| <a href="#">Li, Y. et al. Impairment of autophagy after spinal cord injury potentiates neuroinflammation and motor function deficit in mice., Theranostics 12, 5364-5388, (2022).</a>                      | mouse        | IHC         |
| <a href="#">Xiaojing Kang Shin Shimada Hiroki Miyahara Keiichi Higuchi Masayuki Mori. BALB.NCT-Cpox nct is a unique mouse model of hereditary coproporphyrria., Mol Genet Metab Rep. 35100964, (2023).</a> | mouse        | IHC/IF      |
| <a href="#">Iannibelli E. et al., VCP-related myopathy: a case series and a review of literature., Acta Myol, 42, 2-13, (2023).</a>                                                                        | Human        | IHC-IF      |
| <a href="#">Akwa Y. et al., Stimulation of synaptic activity promotes TFEB-mediated clearance of pathological MAPT/Tau in cellular and mouse models of tauopathies., Autophagy, 19, 660-677, (2023).</a>   | Mouse        | IHC         |
| <a href="#">Opland C. K. et al. Activity-dependent tau cleavage by caspase-3 promotes neuronal dysfunction and synaptotoxicity., iScience, 26, 106905, (2023).</a>                                         | human, mouse | WB          |