

## Monoclonal antibody against SUMO1

### Keywords

- Monoclonal mouse antibody directed against SUMO1<sub>76-86</sub>
- Antibody recognizes SUMO1 of human, mouse, chicken and *X. laevis*
- Suitable for western blot and immune precipitation
- Suitable for large-scale enrichment of SUMOylated species by IP / peptide elution

### Abstract

SUMOylation is an essential modification that regulates hundreds of proteins in eukaryotic cells. The current invention provides an antibody which targets SUMO1 protein of a wide variety of different species.

### Development Stage

Hybridoma cell line producing monoclonal mouse antibody (IgG1, kappa light chain)

### Applications and Commercial Opportunity

The antibody recognizes an epitope that is shared in SUMO1 proteins of human, mouse, chicken and *X. laevis*. The antibody is especially useful for the enrichment of sumoylated species from cells and tissues, as it immunoprecipitates efficiently upon denaturing lysis. Bound proteins can be efficiently removed from solid phase bound antibodies by elution with epitope spanning peptides (see Becker et. al. Nat Struct Mol Biol. 2013 Apr;20(4):525-31; Barysch et al. Nature Protocols 2014, 9:896-909)

### Inventors

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### Further Information

No other public information is currently available, but further information (speaking with the inventor) is available under a signed Confidential Disclosure Agreement (CDA).

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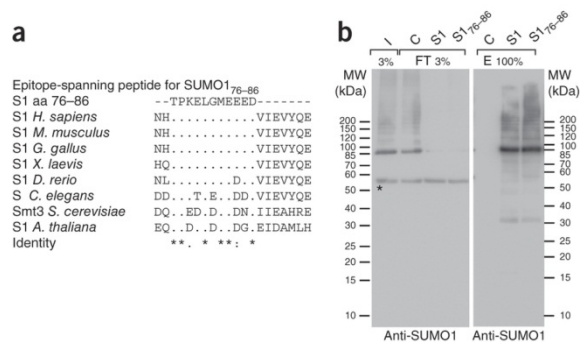
### References:

Detecting endogenous SUMO targets in mammalian cells and tissues.

Becker J, Barysch SV, Karaca S, Dittner C, Hsiao HH, Diaz MB, Herzig S, Urlaub H, Melchior F. Nat Struct Mol Biol. 2013 pr;20(4):525-31

Barysch, S.V, Dittner, C., Flotho, A., Becker, J. and Melchior, F. (2014) Nature Protocols 9, 896-909.

### Figure:



(a) Alignment of the minimal epitope-spanning peptide for SUMO176-86 with SUMO sequences of different species. Asterisk denotes identical residues; colon denotes residues with similar properties. (b) Comparison of SUMO1 immunoprecipitations and peptide elutions performed with SUMO1 21C7 and SUMO1<sub>76-86</sub>. I, input; FT, flow through; E, eluate; S1, SUMO1; S2, SUMO2; C, control; asterisk, cross-reacting band.