

Lot # XXXXX

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MATERIAL DATA SHEET

Human SUMO2/3, Monoclonal Antibody Cat. # A-718

Small Ubiquitin-like Modifiers (SUMOs) are a family of small, related proteins that can be enzymatically attached to a target protein by a post-translational modification process termed SUMOylation. Unlike ubiquitination, which targets proteins for degradation, SUMOylation participates in a number of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. All human SUMO proteins share a conserved ubiquitin-like domain and a C-terminal diglycine cleavage/attachment site. Human SUMO1, SUMO2, SUMO3, and SUMO4 are all translated as propeptides, containing C-terminal prosegments following the diglycine motif that marks the end of the mature forms. Following prosegment cleavage, SUMO1, 2, and 3 may then be enzymatically attached to a lysine on a target protein. It is not clear whether SUMO4 is processed in a similar fashion.

Product Information

Quantity:	100 µg
Source:	Monoclonal Rat IgG _{2A} Clone # 852908
Antigen:	Purified, recombinant human SUMO3. Accession Number P55854
Purification:	Protein G purified from hybridoma culture supernatant
Stock:	0.5 mg/mL in PBS, pH 7.4, 50% glycerol, 0.09% sodium azide

Use & Storage

Specificity:	This antibody detects endogenous, human SUMOylated proteins in Western blots. This antibody has equivalent reactivity to SUMO2 and SUMO3 in Western blots with recombinant SUMO proteins. It has less than 5% cross-reactivity with recombinant SUMO4 and no cross-reactivity with recombinant SUMO1.
Use:	Recommended concentration for Western Blot is 0.1 - 0.5 µg/ml.
Storage:	Store at -20°C.

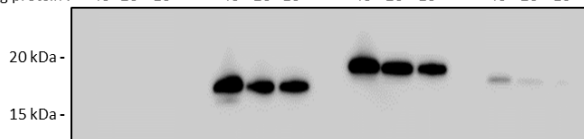
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Sample Western Blot Data

ng protein :	pro-SUMO1			pro-SUMO2			pro-SUMO3			pro-SUMO4		
	40	20	10	40	20	10	40	20	10	40	20	10



10-40 ng of recombinant pro-SUMO proteins were separated on a reducing 10-20% SDS-PAGE gel. Western blots were developed using PVDF membranes and α -SUMO2/3 (A-718) mAb primary at 0.5 μ g/ml followed by HRP-labeled anti-rat (R&D Systems # HAF008) secondary antibody at 1:2000 dilution. SUMO2 and SUMO3 proteins were equally detected in the blot, along with a very faint signal in the SUMO4 lanes.

Literature

- References:** Desterro J.M., *et al.* (1997) FEBS. Lett. **417**: 297-300
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 Su H-L., *et al.* (2002) Gene **296**: 65-73
 Tatham M.H., *et al.* (2001) J. Biol. Chem. **276**: 35368-35374
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