Lot # XXXXX

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MATERIAL DATA SHEET

Human SUMO1, Monoclonal Antibody
Cat. # A-716

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, also known as Sentrin, UBL1, and SMT3C, is synthesized as a 101 amino acid (aa) propeptide that contains a four aa C-terminal prosegment. Following prosegment cleavage, the C-terminal glycine may be enzymatically attached to a lysine on a target protein. Human SUMO1 shares 100% sequence identity to SUMO1 from mouse. SUMO1 is the most unique of the four identified SUMO proteins and shares only 44%, 47%, and 41% sequence identity to SUMO2, SUMO3, and SUMO4, respectively.

Product Information	
Quantity:	100 µg
Source:	Monoclonal Rat IgG_{2A} Clone # 852620
Antigen:	Purified, recombinant human SUMO1. Accession Number P63165
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. It shows no cross-reactivity against recombinant SUMO2, SUMO3, and SUMO4 in Western blots.
Use:	Recommended concentration for Western Blot is 0.1 - 0.5 µg/ml.
Storage:	Store at -20°C.

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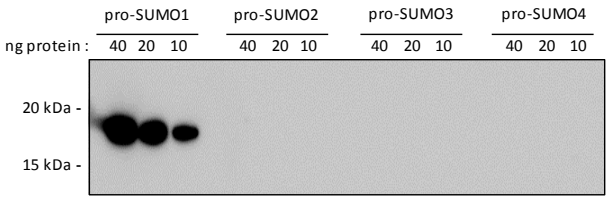
Sample Western Blot Data



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-SUMO1 (A-716) mAb primary at 0.5 µg/ml followed by HRP-labeled anti-rat (R&D Systems # HAF005) secondary antibody at 1:2000 dilution. Only the SUMO1 protein was detected in the blot.

Literature

References:

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