

Lot # XXXXX

BostonBiochem

## MATERIAL DATA SHEET

### Human SUMO3, Monoclonal Antibody Cat. # A-720

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 SUMO3, also known as SMT3A, is synthesized as a 103 amino acid (aa), 11.5 kDa propeptide that contains an 11 aa C-terminal prosegment. Following prosegment cleavage, the C-terminal glycine may be enzymatically attached to a lysine on a target protein. Human SUMO3 shares 83% sequence identity with SUMO3 from mouse. SUMO3 also has very high sequence homology to SUMO2 and SUMO4, 87% and 75%, respectively. SUMO3 shares only 47% sequence identity to SUMO1.

#### Product Information

<b>Quantity:</b>	100 µg
<b>Source:</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 907614
<b>Antigen:</b>	Peptide sequence from SUMO3. Accession Number P55854
<b>Purification:</b>	Protein G purified from hybridoma culture supernatant
<b>Stock:</b>	0.5 mg/mL in PBS, pH 7.4, 50% glycerol, 0.09% sodium azide

#### Use & Storage

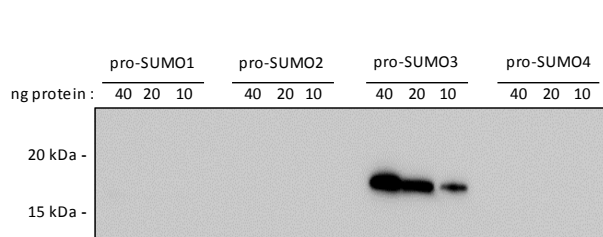
<b>Specificity:</b>	This antibody detects endogenous, human SUMOylated proteins in Western blots. This antibody detects purified, recombinant SUMO3, but has no cross-reactivity to recombinant human SUMO1, 2, or 4.
<b>Use:</b>	Recommended concentration for Western Blot is 0.1- 0.5 µg/ml.
<b>Storage:</b>	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  $\alpha$ -SUMO3 (A-720) mAb primary at 0.5  $\mu$ g/ml followed by HRP-labeled anti-rat (R&D Systems # HAF008) secondary antibody at 1:2000 dilution. Only the SUMO3 protein was detected in the blot.

## Literature

- References:**
- Desterro J.M., *et al.* (1997) FEBS. Lett. **417**: 297-300
  - Okama T., *et al.* (1999) Biochem. Biophys. Res. Comm. **254**: 693-698
  - Seeler J-S. and Dejean A. (2003) Nat. Rev. **4**: 690-699
  - Su H-L., *et al.* (2002) Gene **296**: 65-73
  - Tatham M.H., *et al.* (2001) J. Biol. Chem. **276**: 35368-35374
  - Yeh E.T.H., *et al.* (2000) Gene **248**: 1-14

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