

SUMO 2/3 Monoclonal Mouse Antibody (SM23/496)



Product Description

This mAb reacts with both SUMO-2 and SUMO-3. The small ubiquitin-related modifier (SUMO) proteins, which include SUMO-1, 2 and 3, belong to the ubiquitin-like protein family. Like ubiquitin, the SUMO proteins are synthesized as precursor proteins that undergo processing before conjugation to target proteins. Also, both utilize the E1, E2 and E3 cascade enzymes for conjugation. However, SUMO and ubiquitin differ with respect to targeting. Ubiquitination predominantly targets proteins for degradation, whereas sumoylation targets proteins to a variety of cellular processing, including nuclear transport, transcriptional regulation, apoptosis and protein stability. The unconjugated SUMO-1, 2 and 3 proteins localize to the nuclear membrane, nuclear bodies and cytoplasm, respectively. SUMO-1 utilizes Ubc9 for conjugation to several target proteins, which include MDM2, p53, PML and RanGap1. SUMO-2 and 3 contribute to a greater percentage of protein modification than does SUMO-1 and unlike SUMO-1, they can form polymeric chains. In addition, SUMO-3 regulates beta-Amyloid generation and may be critical in the onset or progression of Alzheimer's disease.

Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0496, Anti-SUMO 2/3 (SM23/496)

Product attributes

| | |
|---------------------------------------|--|
| Antibody number | #0496 |
| Antibody reactivity (target) | SUMO 2/3 |
| Antibody type | Primary |
| Host species | Mouse |
| Clonality | Monoclonal |
| Clone | SM23/496 |
| Isotype | IgG1, kappa |
| Molecular weight | 11-13 kDa |
| Synonyms | HSMT3; Sentrin 2; Small ubiquitin like modifier 2; Small ubiquitin like modifier protein 3; SMT3A; SMT3B; SMT3 homolog 1 (SMT3H1); SMT3 homolog 2 (SMT3H2); SMT3 homolog; SMT3 suppressor of mif two 3 homolog 1; SMT3 suppressor of mif two 3 homolog 2; SMT3 suppressor of mif two 3 homolog 3; Suppressor of mif two 3 homolog 2; Suppressor of mif two 3 homolog 3; Ubiquitin like protein SMT3A; Ubiquitin like protein SMT3B |
| Human gene symbol | SUMO2 |
| Entrez gene ID | 6613 (SUMO-2) & 6612 (SUMO-3) |
| SwissProt | P61956 (SUMO-2) & P55854 (SUMO-3) |
| Immunogen | Recombinant human SUMO2 protein |
| Antibody target cellular localization | Nucleus & cytoplasm |
| Species reactivity | Human |
| Verified antibody applications | Flow (intracellular) (verified), IF (verified), IHC (FFPE) (verified), WB (verified) |
| Antibody application notes | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 µg/mL, Flow Cytometry 0.5-1 µg/million cells/0.1 mL, Western blotting 0.5-1 µg/mL, Predicted to show broad species reactivity |
| Positive control | HeLa cells or breast carcinoma |
| Shipping condition | Room temperature |
| Storage Conditions | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C |
| Shelf life | Guaranteed for at least 24 months from date of receipt when stored as recommended |
| Regulatory status | For research use only (RUO) |
| Antibody research areas | Sumoylation |
| Antibody/conjugate formulation | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide |
| Product origin | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot. |

| Antibody # prefix | Conjugation | Ex/Em (nm) | Laser line | Detection channel | Dye Features |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04 | CF®405S | 404/431 | 405 | DAPI (microscopy), AF405 | CF®405S Features |
| BNC88 | CF®488A | 490/515 | 488 | GFP, FITC | CF®488A Features |
| BNC68 | CF®568 | 562/583 | 532, 561 | RFP, TRITC | CF®568 Features |
| BNC94 | CF®594 | 593/614 | 561 | Texas Red® | CF®594 Features |
| BNC40 | CF®640R | 642/662 | 633-640 | Cy®5 | CF®640R Features |
| BNC47 | CF®647 | 650/665 | 633-640 | Cy®5 | CF®647 Features |
| BNC74 | CF®740 | 742/767 | 633-685 | 775/50 | CF®740 Features |
| BNCB | Biotin | N/A | N/A | N/A | |
| BNUB | Purified | N/A | N/A | N/A | |
| BNUM | Purified, BSA-free | N/A | N/A | N/A | |

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

This datasheet was generated on January 28, 2026 at 12:56:03 AM. Visit product page to check for updated information before use.
Product link: <https://biotium.com/product/monoclonal-anti-sumo-23-sm23496/>