

**Mouse Anti-SUMO-2/3 [SM23/496]: MC0940, MC0940RTU7**

**Intended Use:** For Research Use Only

**Description:** The small ubiquitin-related modifier (SUMO) proteins, which include SUMO-1, SUMO-2 and SUMO-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 protein localizes to the nuclear membrane.

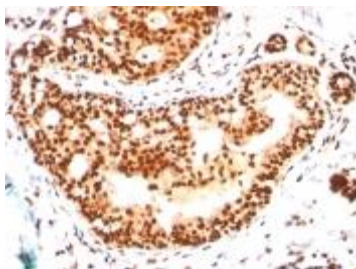
**Specifications**

Clone: SM23/496  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human, rat  
 Localization: nucleus (SUMO-2); cytoplasm (SUMO-3)  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., ICC/IF, WB  
 Package:

Description	Catalog No.	Size
SUMO-2/3 Concentrated	MC0940	1 ml
SUMO-2/3 Prediluted	MC0940RTU7	7 ml

**IHC Procedure**

Positive Control Tissue: Breast cancer, tonsil  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE human breast carcinoma stained with anti-SUMO-2 using DAB

**References:**

- SUMO modification of a heterochromatin histone demethylase JMJD2A enables viral gene transactivation and viral replication. Yang WS, et al. PLoS Pathog 13:e1006216, 2017.
- Assays for Posttranslational Modifications of Intermediate Filament Proteins. Snider NT & Omary MB. Methods Enzymol 568:113-38, 2016.
- Variants of Transient Receptor Potential Melastatin Member 4 in Childhood Atrioventricular Block. Syam N, et al. J Am Heart Assoc 5:N/A, 2016.

Doc. 100-MC0940  
Rev. A