

Mouse Anti-SUMO-1 [SM1/495]: MC0939, MC0939RTU7

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.

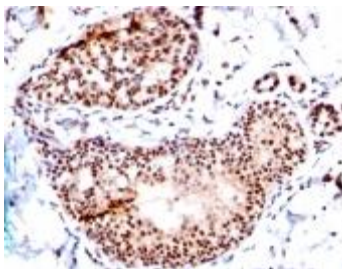
Specifications

Clone: SM1/495
Source: Mouse
Isotype: IgG1k
Reactivity: Human, rat
Localization: Nucleus, some cytoplasm
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC, Flow Cyt., ICC/IF, WB
Package:

Description	Catalog No.	Size
SUMO-1 Concentrated	MC0939	1 ml
SUMO-1 Prediluted	MC0939RTU7	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-1 using DAB

References:

1. SUMO modification of a heterochromatin histone demethylase JMJD2A enables viral gene transactivation and viral replication. Yang WS, et al. PLoS Pathog 13:e1006216, 2017.
2. Mammalian meiotic silencing exhibits sexually dimorphic features. Cloutier JM, et al. Chromosoma 125:215-26, 2016.
3. Novel Role for Protein Inhibitor of Activated STAT 4 (PIAS4) in the Restriction of Herpes Simplex Virus 1 by the Cellular Intrinsic Antiviral Immune Response. Conn KL, et al. J Virol 90:4807-26, 2016.
4. Several posttranslational modifications act in concert to regulate gephyrin scaffolding and GABAergic transmission. Ghosh H, et al. Nat Commun 7:13365, 2016.

Doc. 100-MC0939
Rev. A