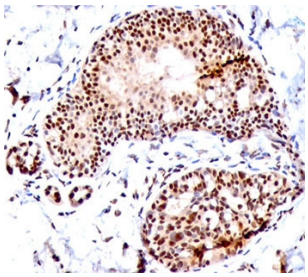
SUMO1 Antibody [clone SM1/495] (V2292)

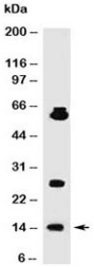
Catalog No.	Formulation	Size
V2292-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2292-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2292SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2292IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

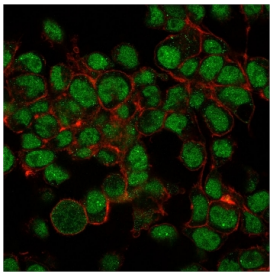
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SM1/495
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	7341
Localization	Predominantly nuclear with some cytoplasmic
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This **SUMO1 antibody** is available for research use only.



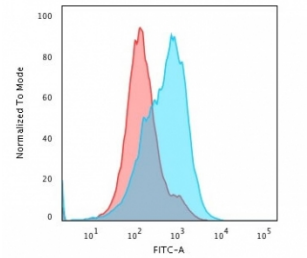
IHC staining of FFPE human tonsil with SUMO1 antibody (clone SM1/495).



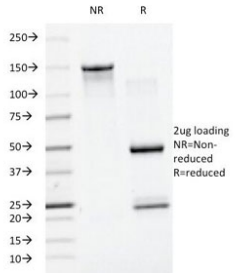
Western blot testing of human HeLa cell lysate using SUMO1 antibody (clone SM1/495).



Immunofluorescent testing of PFA-fixed human HepG2 cells with SUMO1 antibody (green, clone SM1/495) and Phalloidin (red).



Flow cytometry testing of PFA-fixed human HepG2 cells with SUMO1 antibody (clone SM1/495); Red=isotype control, Blue= SUMO1 antibody.



SDS-PAGE analysis of purified, BSA-free SUMO1 antibody (clone SM1/495) as confirmation of integrity and purity.

Description

This antibody is specific to SUMO1 and shows no cross-reaction with either SUMO2 or SUMO3. The small ubiquitin-related modifier (SUMO) proteins, which include SUMO1, 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 SUMO1 protein localizes to the nuclear membrane.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human SUMO1 protein was used as the immunogen for this antibody.

Storage

Store the SUMO1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

GAP-modifying protein 1; GMP1; OFC10; PIC1; Sentrin 1; Small ubiquitin-related modifier 1; SMT3; SMT3 suppressor of mif two 3 homolog 1; SMT3C; SMT3H3; PIC1; Ubiquitin Like 1; UBL1, SUMO1 antibody