

Instructions For Use

RA0295-C.5-IFU-RUO

Rev. Date: Dec. 8, 2014

Revision: 1

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P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 - Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

SUMO-2/3; Clone SM23/496 (Concentrate)

Availability/Contents: Item # Volume
RA0295-C.5 Volume
0.5 ml

Description:

Species: Mouse

Immunogen: Recombinant human SUMO2 protein

Clone: SM23/496 Isotype: IgG1, kappa

Entrez Gene ID: 6613 (SUMO-2) & 6612 (SUMO-3) (Human)

Hu Chromosome Loc.: 11-13kDa

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

Mol. Weight of Antigen: 11-13kDa

Format: 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS

with 0.05% BSA & 0.05% azide.

Specificity: This antibody reacts with both SUMO-2 and SUMO-3.

Background: 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 processes, 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 modifications 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.

Species Reactivity: Human. Shows broad species reactivity.

Positive Control: HeLa cells or breast carcinoma.

Cellular Localization: Predominantly nuclear with some cytoplasmic

Titer/ Working Dilution: Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml

Flow Cytometry: 0.5-1 µg/million cells

 $\begin{array}{ll} Immunofluorescence: & 0.5\text{-}1~\mu g/ml \\ Western~Blotting: & 0.5\text{-}1~\mu g/ml \end{array}$

Immunoprecipitation: 0.5-1 μg/500μg protein lysate

Microbiological State: This product is not sterile.

Storage: 2° C 8° C

ScyTek Laboratories, Inc. 205 South 600 West

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EC REP EmergoEurope (31)(0) 70 345-8570

Molsnstraat 15

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Uses/Limitations: Not to be taken internally.

For Research Use Only.

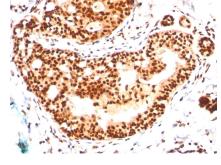
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded

tissue sections, to be viewed by light

microscopy.

Do not use if reagent becomes cloudy. Do not use past expiration date.

Non-Sterile.



Formalin-fixed, paraffin-embedded human breast carcinoma stained with SUMO-2/3; Clone SM23/496.

Ordering Information and Current Pricing at www.scytek.com

Procedure:

- 1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).
- Primary Antibody Incubation Time: We suggest an incubation period of 30 minutes at room temperature.
 However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
- 3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).

Do not pipette by mouth.

Avoid contact of reagents and specimens with skin and mucous membranes.

Avoid microbial contamination of reagents or increased nonspecific staining may occur.

This product contains no hazardous material at a <u>reportable concentration</u> according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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