abcam

Product datasheet

Anti-Sumo 2 + Sumo 3 antibody [8A2] ab81371

Recombinant

7 Abreviews 63 References 9 Images

Overview

Product name	Anti-Sumo 2 + Sumo 3 antibody [8A2]
Description	Mouse monoclonal [8A2] to Sumo 2 + Sumo 3
Host species	Mouse
Specificity	This antibody recognizes Sumo 2 and 3 but does not recognize Sumo 1.
Tested applications	**Suitable for:** WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant full length protein corresponding to Human Sumo 2 + Sumo 3. Database link: **P61956, P55854**
Positive control	WB: HeLa, SH-SY5Y, K562, SW480, Jurkat, HEK-293T, PC-12 and NIH/3T3 whole cell lysate. Human brain, spleen and kidney tissue lysate. Rat spleen tissue lysate. Mouse brain tissue lysate. IHC-P: Mouse and rat kidney tissue. Human breast tissue. ICC: HeLa, SW480 and NIH/3T3 cells.
General notes	This product has switched from ascites to recombinant production method on 25th August 2020. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	8A2

Isotype IgG2b

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab81371 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

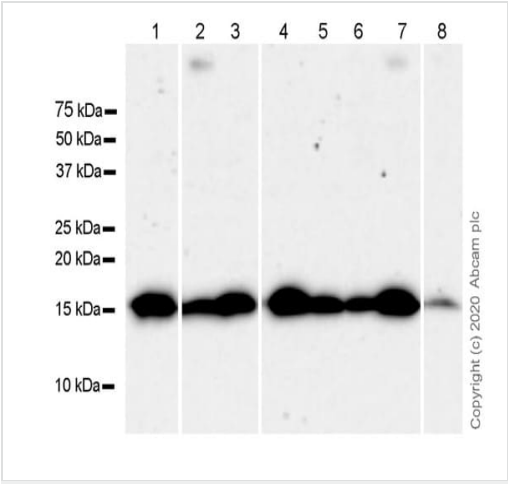
Application	Abreviews	Notes
WB	★★★★★ (3)	1/1000. Predicted molecular weight: 12 kDa.
ICC/IF	★★★★★ (2)	1/2000.
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Relevance SUMO proteins, such as Sumo 2 and Sumo 3, post-translationally modify numerous cellular proteins and affect their metabolism and function. However, unlike ubiquitination, which targets proteins for degradation, sumoylation participates in a number of cellular processes, such as nuclear transport, transcriptional regulation, apoptosis, and protein stability. Sumo 2 and Sumo 3 are highly homologous, hence it is very difficult to produce antibodies which distinguish them.

Cellular localization Cytoplasmic (SUMO3) and Nuclear (SUMO2)

Images



Western blot - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

All lanes : Anti-Sumo 2 + Sumo 3 antibody [8A2] (ab81371) at 1/1000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate B276

Lane 2 : SH-SY5Y (human neuroblastoma epithelial cell), whole cell lysate

Lane 3 : K562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate

Lane 4 : SW480 (human colorectal adenocarcinoma epithelial cell), whole cell lysate

Lane 5 : Jurkat (human T cell leukemia T lymphocyte), whole cell lysate

Lane 6 : 293T (human embryonic kidney epithelial cell), whole cell lysate

Lane 7 : PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate

Lane 8 : NIH/3T3 (mouse embryonic fibroblast), whole cell lysate

Lysates/proteins at 10 µg per lane.

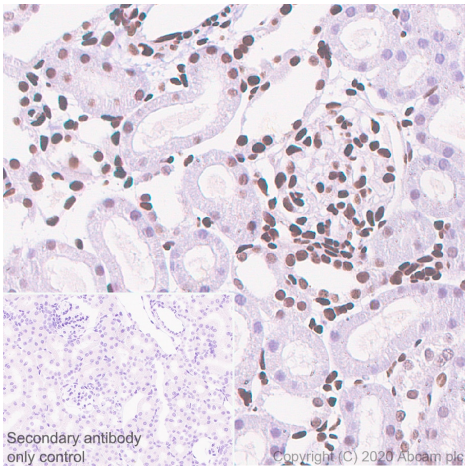
Secondary

All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L)

Predicted band size: 12 kDa

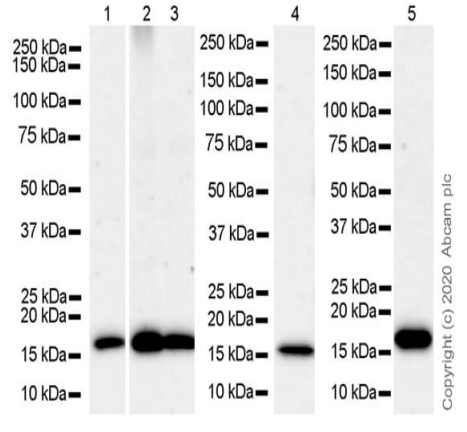
Observed band size: 15 kDa

Buffer and concentration: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Sumo 2 + Sumo 3 with ab81371 at 1/1000 dilution followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). The section was incubated with ab81371 for overnight at 4**I**.
Secondary antibody only control: Ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution1).



Western blot - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

All lanes : Anti-Sumo 2 + Sumo 3 antibody [8A2] (ab81371) at 1/1000 dilution

Lane 1 : Human brain tissue lysate
Lane 2 : Human kidney tissue lysate
Lane 3 : Human spleen tissue lysate
Lane 4 : Mouse brain tissue lysate
Lane 5 : Rat spleen tissue lysate

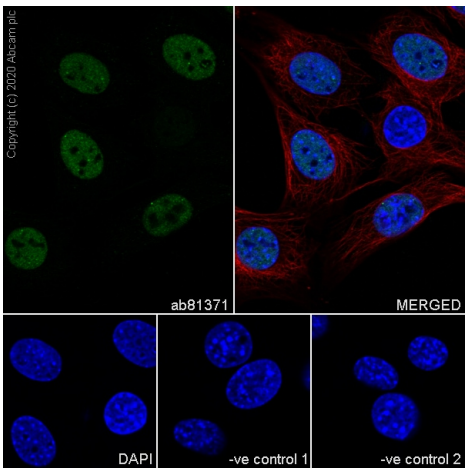
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

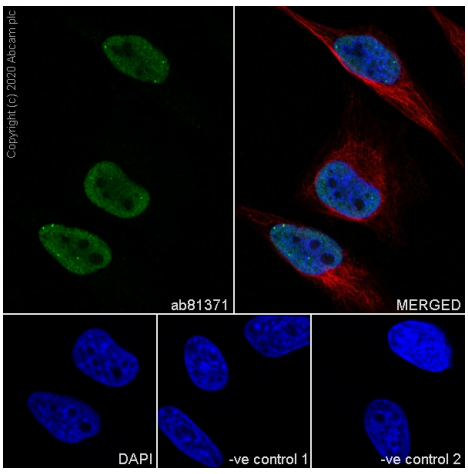
Predicted band size: 12 kDa
Observed band size: 15 kDa

Dilution and concentration: 5% NFDM/TBST



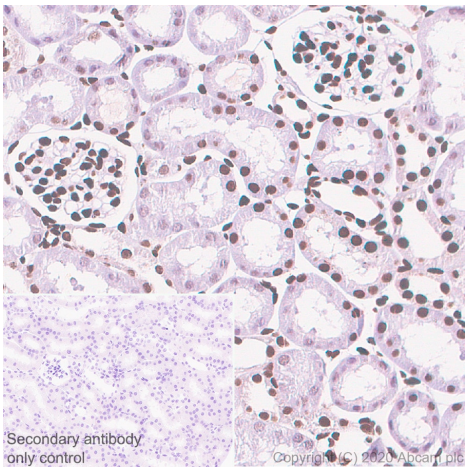
Immunocytochemistry/ Immunofluorescence - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunocytochemistry/immunofluorescence analysis of NIH/3T3 cells labelling Sumo 2 + Sumo 3 with ab81371 at 1/50 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Primary antibody, ab81371 at 1:50 was incubated overnight at 4° C, followed by AlexaFluor® 488-conjugated Goat anti- Mouse secondary antibody (**ab150113**) at 1/1000 dilution at RT for 45 min. **ab179513** Anti-beta Tubulin, used as a counterstain at 1/200 dilution, was co-incubated with ab81371 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Rabbit. secondary (**ab150080**) at 1/1000 dilution at RT for 45 min. Nucleus were visualized using DAPI.



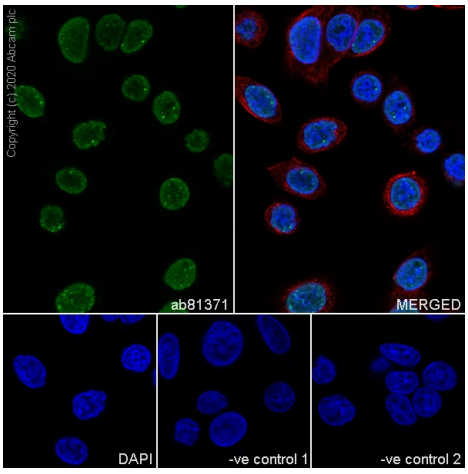
Immunocytochemistry/ Immunofluorescence - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunocytochemistry/immunofluorescence analysis of HeLa cells labelling Sumo 2 + Sumo 3 with ab81371 at 1/50 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Primary antibody, ab81371 at 1:50 was incubated overnight at 4° C, followed by AlexaFluor® 488-conjugated Goat anti- Mouse secondary antibody (**ab150113**) at 1/1000 dilution at RT for 45 min. **ab179513** Anti-beta Tubulin, used as a counterstain at 1/200 dilution, was co-incubated with ab81371 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Rabbit. secondary (**ab150080**) at 1/1000 dilution at RT for 45 min. Nucleus were visualized using DAPI.



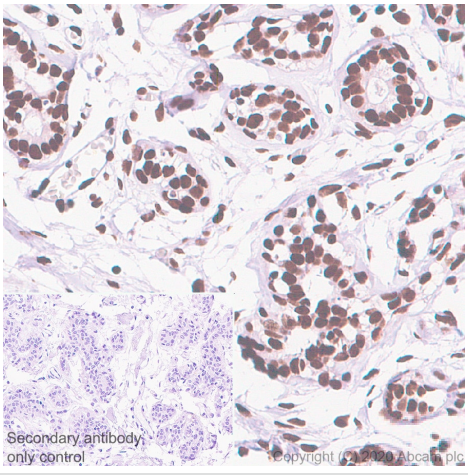
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Sumo 2 + Sumo 3 with ab81371 at 1/1000 dilution followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). The section was incubated with ab81371 for overnight at 4**I**.
Secondary antibody only control: Ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution1).



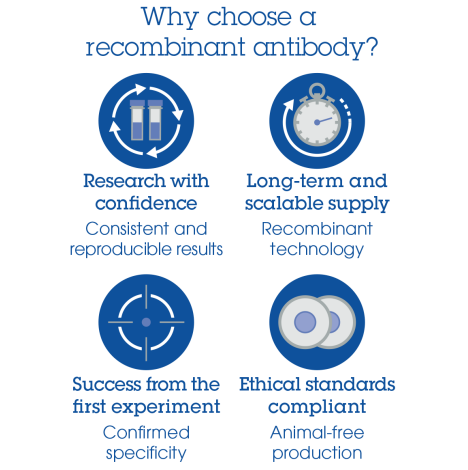
Immunocytochemistry/ Immunofluorescence - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunocytochemistry/immunofluorescence analysis of SW480 cell line labelling Sumo 2 + Sumo 3 with ab81371 at 1/50 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Primary antibody, ab81371 at 1:50 was incubated overnight at 4° C, followed by AlexaFluor® 488-conjugated Goat anti- Mouse secondary antibody (**ab150113**) at 1/1000 dilution at RT for 45 min. **ab179513** Anti-beta Tubulin, used as a counterstain at 1/200 dilution, was co-incubated with ab81371 overnight at 4° C, followed by Alexa Fluor® 594 Goat Anti-Rabbit. secondary (**ab150080**) at 1/1000 dilution at RT for 45 min. Nucleus were visualized using DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sumo 2 + Sumo 3 antibody [8A2] - ChIP Grade (ab81371)

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling Sumo 2 + Sumo 3 with ab81371 at 1/1000 dilution followed by a ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**). The section was incubated with ab81371 for overnight at 4**I**.
Secondary antibody only control: Ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (**ab214879**).
Heat mediated antigen retrieval with citrate buffer (pH 6.0, epitope retrieval solution1).



Anti-Sumo 2 + Sumo 3 antibody [8A2] (ab81371)

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors