



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



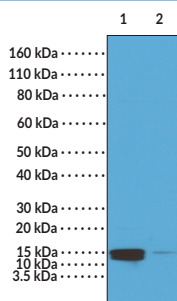
Histone H2AS1Ph Monoclonal Antibody

Item No. 32163

Overview and Properties

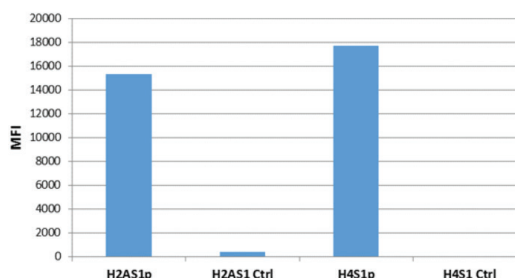
Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonyms:	H2ApS1, H2ApSer1, H2A (Phospho-Ser1), Phospho-Histone H2A Serine 1, Phosphorylated Histone H2A Serine 1
Immunogen:	Peptide corresponding to H2AS1Ph
Cross Reactivity:	(+) H2AS1Ph, H4S1Ph; (-) Unmodified H2AS1, unmodified H4S1
Species Reactivity:	(+) Vertebrates
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1 mg/ml
Clone:	RM216
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, immunocytochemistry (ICC), multiplex-based assays, and Western blot (WB); the recommended starting concentration for ELISA is 0.2-1 µg/ml, 1-2 µg/ml for ICC, 0.1-1 µg/ml for multiplex-based assays, and 0.5-2 µg/ml for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

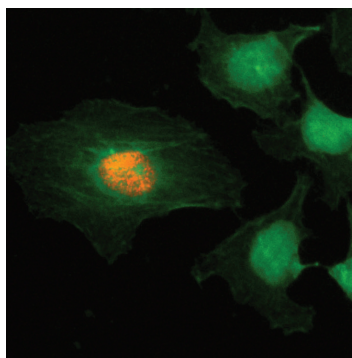


Lane 1: HeLa cells treated
Lane 2: HeLa cells untreated

WB of acid extracts of HeLa cells treated with nocodazole or left untreated using Histone H2AS1Ph Monoclonal Antibody at a concentration of 0.5 µg/ml, which showed histone H2A and H4 phosphorylated at serine 1 in HeLa cells.



Histone H2AS1Ph Monoclonal Antibody specifically reacts to H2AS1Ph and H4S1Ph. There is no cross reactivity with unmodified H2AS1 or unmodified H4S1.



Immunofluorescent labeling of HeLa cells using Histone H2AS1Ph Monoclonal Antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/01/2020

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Histone H2A is a nuclear protein and a component of the nucleosome core, a basic unit of chromatin, that is essential for organizing genomic DNA in eukaryotic nuclei.¹ Histones are globular proteins with unstructured N-terminal tails and are subject to a variety of post-translational modifications, such as methylation, acetylation, phosphorylation, and citrullination, that can influence chromatin structure and regulate gene transcription.^{1,2} Phosphorylation of histone H2A at serine 1 (H2AS1Ph) is mediated by p90 ribosomal S6 kinase 5 (RSK5) and is associated with transcriptional repression.³ H2AS1Ph is enriched during mitosis in *C. elegans*, *Drosophila*, and HeLa cells, as well as during meiotic recombination in mouse spermatozoa.⁴⁻⁶ Cayman's Histone H2AS1Ph Monoclonal Antibody can be used for ELISA, immunocytochemistry (ICC), multiplex-based assay, and Western blot (WB) applications. This antibody is cross-reactive with histone H4 phosphorylated at serine 1 (H4S1Ph).

References

1. Hyun, K., Jeon, J., Park, K., *et al.* Writing, erasing and reading histone lysine methylations. *Exp. Mol. Med.* **49**(4), e324 (2017).
2. Wang, Y., Li, M., Stadler, S., *et al.* Histone hypercitrullination mediates chromatin decondensation and neutrophil extracellular trap formation. *J. Cell Biol.* **184**(2), 205-213 (2009).
3. Zhang, Y., Griffin, K., Mondal, N., *et al.* Phosphorylation of histone H2A inhibits transcription on chromatin templates. *J. Biol. Chem.* **279**(21), 21866-21872 (2004).
4. Barber, C.M., Turner, F.B., Wang, Y., *et al.* The enhancement of histone H4 and H2A serine 1 phosphorylation during mitosis and S-phase is evolutionarily conserved. *Chromosoma* **112**(7), 360-371 (2004).
5. Chioccarelli, T., Pierantoni, R., Manfredola, F., *et al.* Histone post-translational modifications and circRNAs in mouse and human spermatozoa: Potential epigenetic marks to assess human sperm quality. *J. Clin. Med.* **9**(3), 640 (2020).
6. Zhang, Z.-H., Mu, S.-M., Guo, M.-S., *et al.* Dynamics of histone H2A, H4 and HS1ph during spermatogenesis with a focus on chromatin condensation and maturity of spermatozoa. *Sci. Rep.* **6**, 25089 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM