

DATASHEET

SMC1A Mouse Monoclonal Antibody(C3292)

CAT. NO. AMA02904

KEY FEATURES

Target	SMC1A	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.	Storage	at-20°C

BACKGROUND

Involved in chromosome cohesion during cell cycle and in DNA repair. Central component of cohesin complex. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:100

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to SMC1A
Specificity	Recognizes endogenous levels of SMC1A protein.
Antibody Type	Primary antibody
Immunogen	Purified recombinant human SMC1A(C-term.) protein fragments expressed in E.coli.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 143 kD; Observed: 143 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	DXS423E; KIAA0178; SB1.8; SMC1; SMC1L1; Structural maintenance of chromosomes protein 1A; SMC protein 1A; SMC-1-alpha; SMC-1A; Sb1.8
Gene Symbol	SMC1A
Entrez Gene	8243(Human)
SwissProt	Q14683(Human)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

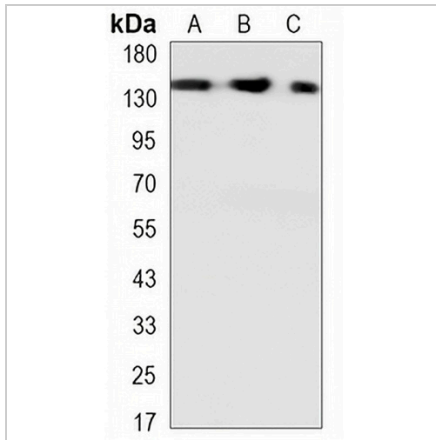
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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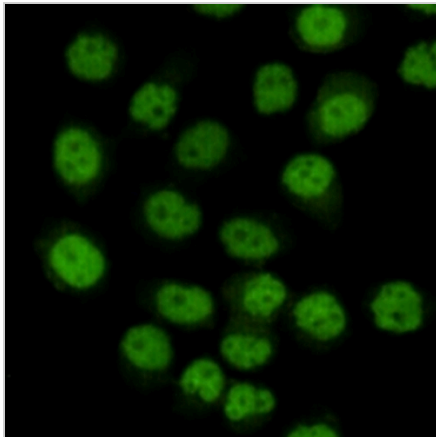
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Western blot analysis of SMC1A expression in Molt4 (A), U87MG (B), HeLa (C) whole cell lysates. (Predicted band size: 143 kD; Observed band size: 143 kD)



Immunofluorescent analysis of SMC1A staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.