

Datasheet: VMA00637

Description:	MOUSE ANTI SMC1A
Specificity:	SMC1A
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	AB01/4H4
Isotype:	IgG1
Quantity:	100 µl

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

Target Species

Human

Species Cross Reactivity

Reacts with: Mouse, Rat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation

Mouse monoclonal antibody purified by affinity chromatography on Protein G from tissue culture supernatant.

Buffer Solution

Phosphate buffered saline.

Preservative Stabilisers

0.09% Sodium Azide (NaN₃).

Immunogen *E. coli*-derived recombinant human SMC1A (aa 837-1233)

External Database

Links

UniProt:

[Q14683](#)

[Related reagents](#)

Entrez Gene:

[8243](#)

SMC1A

[Related reagents](#)

Synonyms

DXS423E, KIAA0178, SB1.8, SMC1, SMC1L1

Specificity

Mouse anti Human SMC1A antibody recognizes structural maintenance of chromosomes protein 1A, also known as SMC protein 1A, SMC-1-alpha or segregation of mitotic chromosomes 1.

Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1B or the protein encoded by SMC1A. Most of the cohesin complexes dissociate from the chromosomes before mitosis, although those complexes at the kinetochore remain. Therefore, the encoded protein is thought to be an important part of functional kinetochores. In addition, this protein interacts with BRCA1 and is phosphorylated by ATM, indicating a potential role for this protein in DNA repair. SMC1A, which belongs to the SMC gene family, is located in an area of the X-chromosome that escapes X inactivation. Mutations in SMC1A result in Cornelia de Lange syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms (provided by RefSeq, Jul 2013).

Mouse anti Human SMC1A antibody detects a band of 155 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

Western Blotting

Mouse anti SMC1A antibody detects a band of approximately 155 kDa in HEK293 cell lysates.

Storage

Store undiluted at -20°C, avoiding repeated freeze thaw cycles.

Guarantee

12 months from date of despatch.

Acknowledgements

PrecisionAb is a trademark of Bio-Rad Laboratories.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/VMA00637>
Antibody (10040)

Regulatory

For research purposes only.

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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