

Datasheet: VMA00610

Description:	MOUSE ANTI SMC3
Specificity:	SMC3
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	AB02/4E11
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	▪			1/500 - 1/2000

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

0.09% Sodium Azide (NaN₃)

Stabilisers

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen *E. coli*-derived recombinant human SMC3 (aa 903-1217)

External Database Links

UniProt:

[Q9UQE7](#) [Related reagents](#)

Entrez Gene:

[9126](#) SMC3 [Related reagents](#)

Synonyms BAM, BMH, CSPG6, SMC3L1

Specificity **Mouse anti Human SMC3 antibody** recognizes SMC3, also known as BAM, HCAP, CDLS3, CSPG6 or BMH.

The SMC3 protein is a subunit of cohesin, a ubiquitously-expressed complex associated with sister chromatid cohesion, chromatin structure, gene expression, and DNA repair ([Hill et al. 2016](#)). Establishment of cohesion between replicated sister chromatids is important for ensuring their correct segregation during anaphase of the cell cycle. Acetylation of SMC3 during S phase is essential for the function of cohesin. Deacetylation of SMC3 during telophase is important for recycling cohesin so it can be reloaded during interphase ([Dasgupta et al. 2016](#)). Genes encoding subunits of cohesin are mutated in a range of cancers. Mutations in SMC3 have been found in chronic myelogenous leukemia and glioblastoma ([Solomon et al. 2014](#)). A post-translationally modified form of SMC3 is secreted as bamacan ([Ghiselli et al. 2003](#)), a basement membrane protein ([Ghiselli and Iozzo 2000](#)).

Western Blotting Mouse anti SMC3 antibody detects a band of approximately 144 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: Antibody (10040): <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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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