

Product datasheet for **AM31080PU-N**

SMC1 (SMC1A) Mouse Monoclonal Antibody [Clone ID: 1B9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1B9
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA. Immunohistochemistry on Paraffin Sections: 5 µg/ml. Western Blot.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	SMC1A antibody was raised against recombinant protein
Specificity:	This antibody reacts to SMC1A / SMC1.
Formulation:	PBS, pH 7.2 State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein A chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	structural maintenance of chromosomes 1A
Database Link:	Entrez Gene 8243 Human Q14683



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Background:

Structural maintenance of chromosome proteins (SMC) are involved in chromosome cohesion during cell cycle and in DNA repair as part of the 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. The form of SMC1A phosphorylated at Ser-957 and Ser-966 associates with chromatin during G1/S/G2 phases but not during M phase, suggesting that phosphorylation does not regulate cohesin function.

Synonyms:

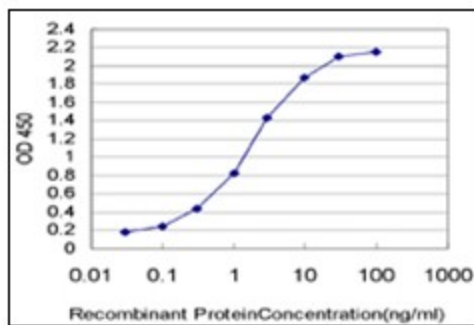
SMC protein 1A, SMC-1A, SMC-1-alpha, SMC1L1, DXS423E

Protein Families:

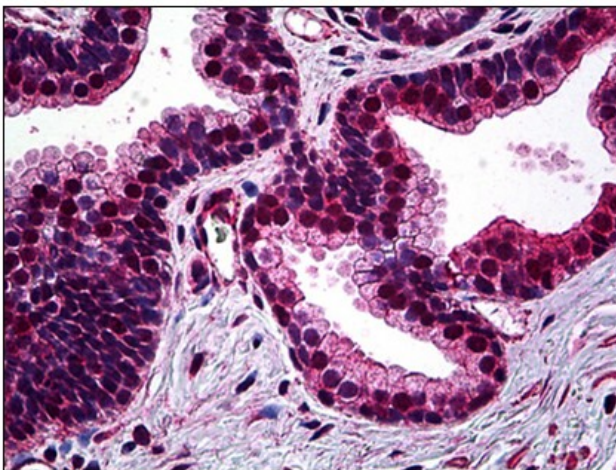
Druggable Genome

Protein Pathways:

Cell cycle, Oocyte meiosis

Product images:

Detection limit for recombinant GST tagged SMC1L1 is approximately 0.03ng/ml as a capture antibody.



Human Prostate: Formalin-Fixed, Paraffin-Embedded (FFPE)