10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SMC3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14836c

Specification

SMC3 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q9UQE7
Other Accession	P97690, Q9CW03, O97594, NP_005436.1
Reactivity	**Human**
Predicted	**Bovine, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**141542**
Antigen Region	**402-430**

SMC3 Antibody (Center) - Additional Information

Gene ID 9126

Other Names
Structural maintenance of chromosomes protein 3, SMC protein 3, SMC-3, Basement membrane-associated chondroitin proteoglycan, Bamacan, Chondroitin sulfate proteoglycan 6, Chromosome-associated polypeptide, hCAP, SMC3, BAM, BMH, CSPG6, SMC3L1

Target/Specificity
This SMC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 402-430 amino acids from the Central region of human SMC3.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SMC3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SMC3 Antibody (Center) - Protein Information

Name SMC3

Synonyms BAM, BMH, CSPG6, SMC3L1

Function Central component of cohesin, a complex required for chromosome cohesion during the cell cycle. The cohesin complex may form 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. Cohesion is coupled to DNA replication and is involved in DNA repair. The cohesin complex also plays an important role in spindle pole assembly during mitosis and in chromosomes movement.

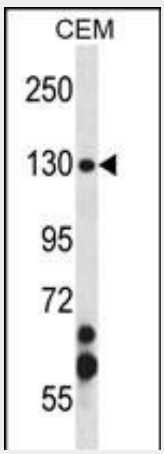
Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q9CW03}. Chromosome {ECO:0000250|UniProtKB:Q9CW03}. Chromosome, centromere {ECO:0000250|UniProtKB:Q9CW03}. Note=Associates with chromatin. Before prophase it is scattered along chromosome arms. During prophase, most of cohesin complexes dissociate from chromatin probably because of phosphorylation by PLK, except at centromeres, where cohesin complexes remain. At anaphase, the RAD21 subunit of the cohesin complex is cleaved, leading to the dissociation of the complex from chromosomes, allowing chromosome separation. The phosphorylated form at Ser-1083 is preferentially associated with unsynapsed chromosomal regions (By similarity). {ECO:0000250|UniProtKB:Q9CW03}

SMC3 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SMC3 Antibody (Center) - Images



SMC3 Antibody (Center) (Cat. #AP14836c) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the SMC3 antibody detected the SMC3 protein (arrow).

SMC3 Antibody (Center) - Background

This gene belongs to the SMC3 subfamily of SMC proteins.

The encoded protein occurs in certain cell types as either an intracellular, nuclear protein or a secreted protein. The nuclear form, known as structural maintenance of chromosomes 3, is a component of the multimeric cohesin complex that holds together sister chromatids during mitosis, enabling proper chromosome segregation. Post-translational modification of the encoded protein by the addition of chondroitin sulfate chains gives rise to the secreted proteoglycan bamacan, an abundant basement membrane protein.

SMC3 Antibody (Center) - References

Pie, J., et al. Am. J. Med. Genet. A 152A (4), 924-929 (2010) :
Terret, M.E., et al. Nature 462(7270):231-234(2009)
Revenkova, E., et al. Hum. Mol. Genet. 18(3):418-427(2009)
Ridinger, H., et al. Exp. Mol. Pathol. 86(1):23-31(2009)
Mohan, K.V., et al. J. Neurovirol. 15(3):229-237(2009)