

KD-Validated Anti-SMC3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1737

Product Information

Application	WB, FC, ICC
Primary Accession	Q9UQE7
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB2155
Calculated MW	141542
Gene Name	SMC3
Aliases	SMC3; Structural Maintenance Of Chromosomes 3; SMC3L1; HCA; BAM; Bamacan; CSPG6; Basement Membrane-Associated Chondroitin Proteoglycan; Structural Maintenance Of Chromosomes Protein 3; Chondroitin Sulfate Proteoglycan 6 (Bamacan); Chromosome-Associated Polypeptide; SMC Protein 3; BMH; Chondroitin Sulfate Proteoglycan 6; Bamacan Proteoglycan; CDLS3; SMC-3
Immunogen	A synthesized peptide derived from human SMC3

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

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}

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