

Anti-SMC3 Picoband Antibody

Catalog # ABO12432

Product Information

Application	WB, IHC-P
Primary Accession	Q9UQE7
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Structural maintenance of chromosomes protein 3(SMC3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	141542
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus. Chromosome. Chromosome, centromere. 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). .
Source	Eukaryota
Protein Name	Structural maintenance of chromosomes protein 3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SMC3 (1178-1216aa ELLESADKIFYGVKFRNKVSHIDVITAEMAKDFVEDDTTH), identical to the related mouse sequence.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

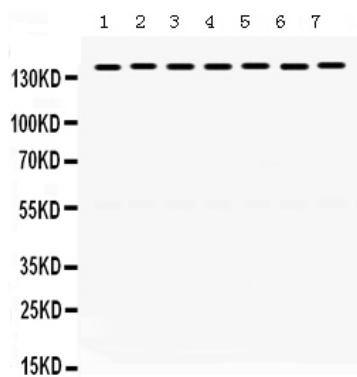
Name	SMC3
Synonyms	BAM, BMH, CSPG6, SMC3L1
Function	Central component of cohesin, a complex required for chromosome cohesion during the cell cycle. The cohesin complex may form a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates 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}

Background

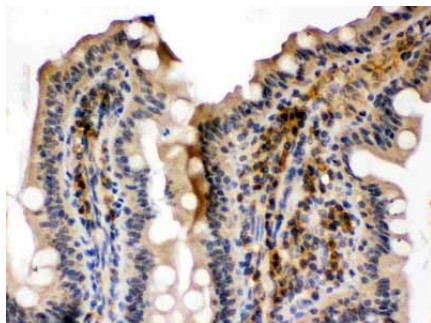
Structural maintenance of chromosomes 3, also known as SMC3, is a human gene. This gene belongs to the SMC3 subfamily of SMC proteins. The encoded protein occurs in certain cell types as either an intracellular, nuclear protein or a secreted protein. The nuclear form, known as structural maintenance 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.

Images

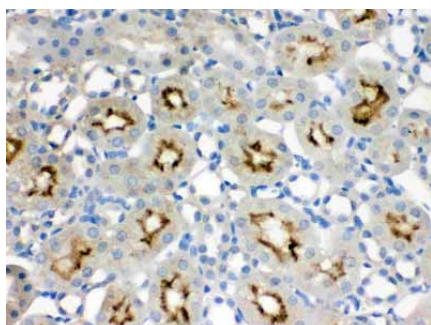
Anti- SMC3 Picoband antibody, ABO12432, Western blottingAll lanes: Anti SMC3 (ABO12432) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: Rat Testis Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: A549 Whole Cell Lysate at 40ugLane 6: MCF-7 Whole Cell Lysate



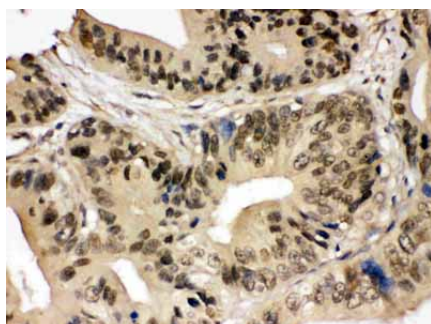
at 40ugLane 7: NIH3T3 Whole Cell Lysate at
40ugPredicted bind size: 140KDObserved bind size:
140KD



Anti- SMC3 Picoband antibody, ABO12432, IHC(P)IHC(P):
Mouse Intestine Tissue



Anti- SMC3 Picoband antibody, ABO12432, IHC(P)IHC(P):
Rat Kidney Tissue



Anti- SMC3 Picoband antibody, ABO12432, IHC(P)IHC(P):
Human Intestinal Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.