

Anti-SMC3 Picoband Antibody
Catalog # ABO12432**Specification****Anti-SMC3 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	O9UQE7
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.

Anti-SMC3 Picoband Antibody - 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 MW KDa

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).

Protein Name

Structural maintenance of chromosomes protein 3

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human SMC3 (1178-1216aa ELLESADKFGYGVKFRNKVSHIDVITAEMAKDFVEDDTTH), 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.

Anti-SMC3 Picoband Antibody - 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

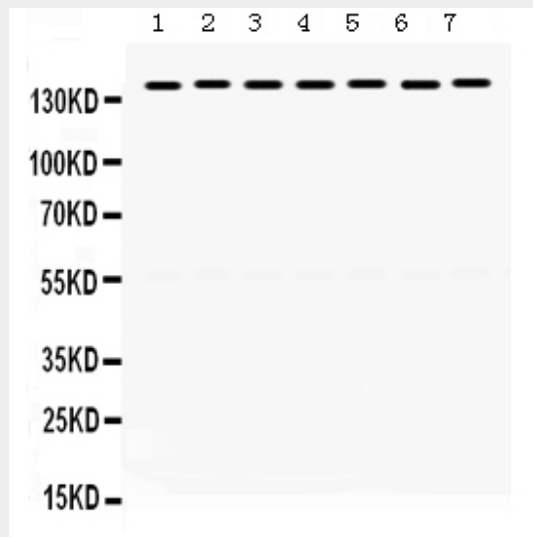
Nucleus {ECO:0000250|UniProtKB:Q9CW03}. Chromosome {ECO:0000250|UniProtKB:Q9CW03}. Chromosome, centromere {ECO:0000250|UniProtKB:Q9CW03}. Note=Associates with chromatin. Before prophase it is scattered along chromosome arms. During prophase, most of cohesin complexes dissociate from chromatin probably 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}

Anti-SMC3 Picoband Antibody - Protocols

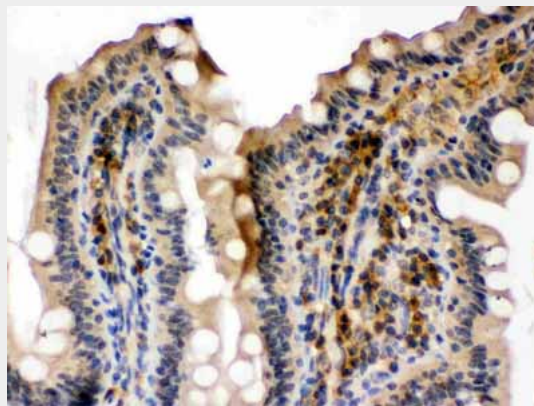
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

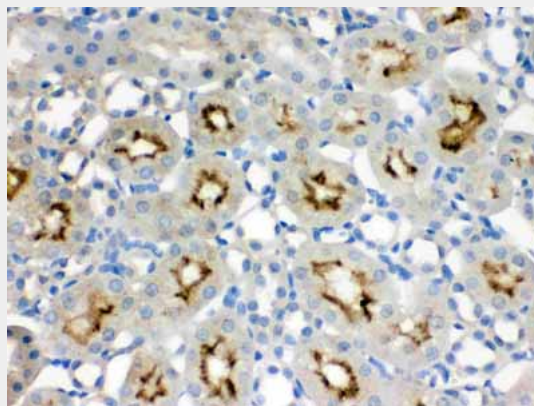
Anti-SMC3 Picoband Antibody - Images



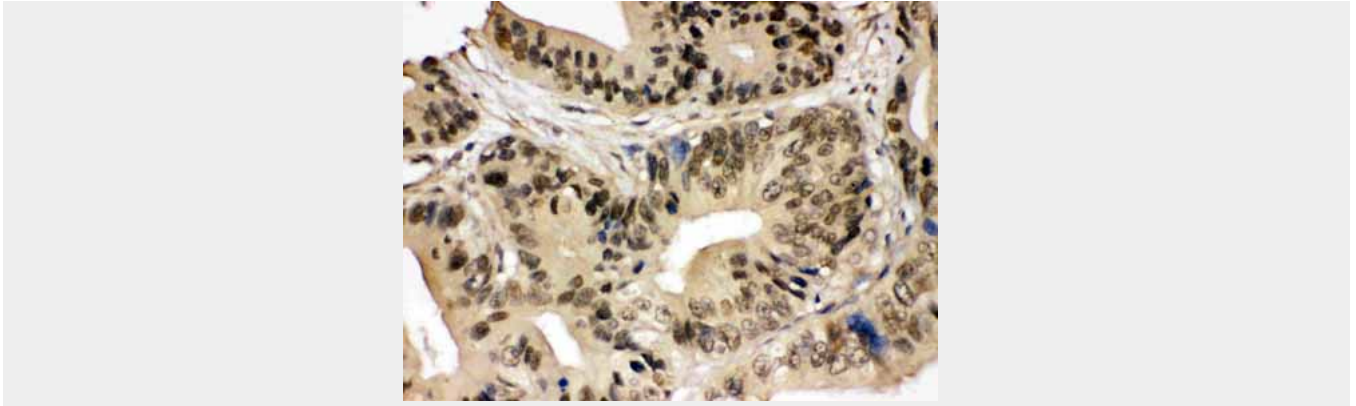
Anti- SMC3 Picoband antibody, ABO12432, Western blotting All lanes: Anti SMC3 (ABO12432) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 50ug
Lane 2: Rat Liver Tissue Lysate at 50ug
Lane 3: Rat Testis Tissue Lysate at 50ug
Lane 4: HELA Whole Cell Lysate at 40ug
Lane 5: A549 Whole Cell Lysate at 40ug
Lane 6: MCF-7 Whole Cell Lysate at 40ug
Lane 7: NIH3T3 Whole Cell Lysate at 40ug
Predicted bind size: 140KD
Observed 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

Anti-SMC3 Picoband Antibody - 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.