10320 Camino Santa Fe, Suite G
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KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1744

Specification

KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q9NTJ3
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 147 kDa , observed , 180 kDa KDa**
Gene Name	**SMC4**
Aliases	**SMC4; Structural Maintenance Of Chromosomes 4; HCAP-C; SMC4L1; CAP-C; Structural Maintenance Of Chromosomes Protein 4; Chromosome-Associated Polypeptide C; SMC Protein 4; SMC-4; CAPC; SMC4 (Structural Maintenance Of Chromosomes 4, Yeast)-Like 1; SMC4 Structural Maintenance Of Chromosomes 4-Like 1 (Yeast); SMC4 Structural Maintenance Of Chromosomes 4-Like 1; XCAP-C Homolog**
Immunogen	**A synthesized peptide derived from human SMC4**

KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**10051**

Other Names
Structural maintenance of chromosomes protein 4, SMC protein 4, SMC-4, Chromosome-associated polypeptide C, hCAP-C, XCAP-C homolog, SMC4, CAPC, SMC4L1

KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody - Protein Information

Name SMC4

Synonyms CAPC, SMC4L1

Function
Central component of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases.

Cellular Location

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Nucleus. Cytoplasm. Chromosome. Note=In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, most of the condensin complex is associated with the chromatin. At the onset of prophase, the regulatory subunits of the complex are phosphorylated by CDC2, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase

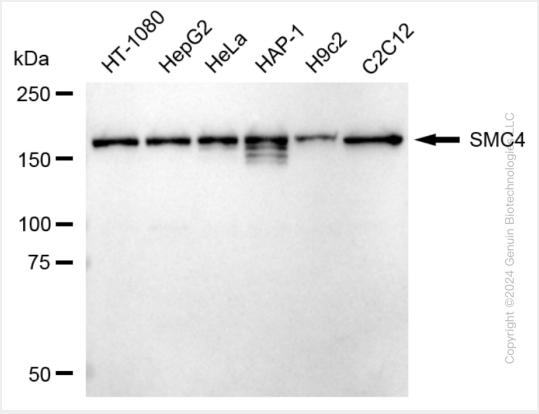
Tissue Location
Widely expressed. Higher expression in testis, colon, thymus.

KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody - Protocols

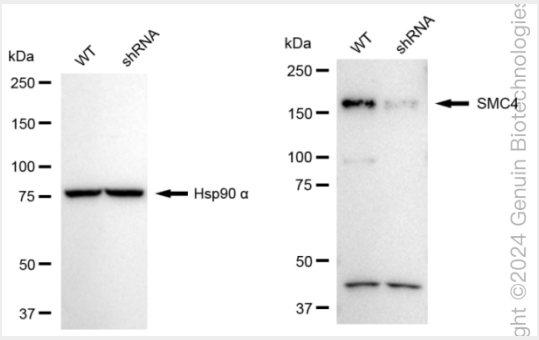
Provided below are standard protocols that you may find useful for product applications.

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

KD-Validated Anti-SMC4 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-SMC4 antibody (Cat#AGI1744). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SMC4 antibody (Cat#AGI1744, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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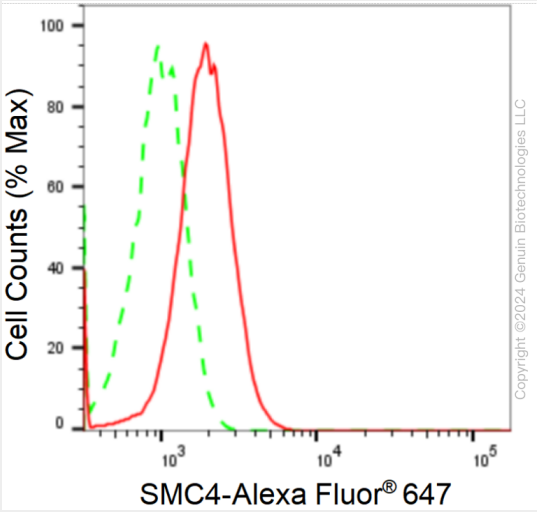
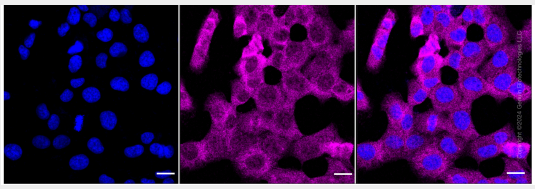
Western blotting analysis using anti-SMC4 antibody (Cat#AGI1744). SMC4 expression in wild type (WT) and SMC4 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-SMC4 antibody (Cat#AGI1744, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of SMC4 expression in HT-1080 cells using anti-SMC4 antibody (Cat#AGI1744, 1:2,000). Green, isotype control; red, SMC4.



Immunocytochemical staining of HT-1080 cells with anti-SMC4 antibody (Cat#AGI1744, 1:1,000). Nuclei were stained blue with DAPI; SMC4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.