

Anti-SMC3 Antibody [JM10-75]

ET1703-35



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Zebrafish
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, FC
Molecular Wt:	Predicted band size: 142 kDa
Clone number:	JM10-75

Description: The SMC (structural maintenance of chromosomes) family of proteins form heterodimeric complexes that modulate sister chromatid cohesion and chromosome condensation for mitosis. The two distinct classes of SMC protein complexes are comprised of SMC1 (also designated SB1.8) with SMC3 (also designated HCAP for human chromosome-associated protein and Bamacan for the secreted proteoglycan), and SMC2 (also designated hCAP-E) with SMC4 (also designated hCAP-C). The SMC1/SMC3 complex is required for metaphase progression in mitotic cells and functions independently of the SMC2/SMC4 complex during the cell cycle. SMC1 is ubiquitously expressed in various human tissues, including thymus, testis, and colon. SMC3 is expressed as a nuclear protein in the colon, but can also occur as a secreted proteoglycan expressed in testis and brain. The secreted proteoglycan contains several glycosylation sites and is thought to play a role in basement membrane physiology.

Immunogen: Synthetic peptide within Human SMC3 aa 1994-1217 / 1217.

Positive control: HepG2 cell lysate, NIH-3T3 cell lysate, PC12 cell lysate, HeLa, HepG2, NIH-3T3, human tonsil tissue, human colon cancer tissue, human kidney tissue, mouse colon tissue, zebrafish tissue.

Subcellular location: Centromere, Chromosome, Nucleus.

Database links: SwissProt: Q9UQE7 Human | Q9CW03 Mouse | P97690 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:100-1:500
IF-Tissue	1:100-1:500
IHC-P	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

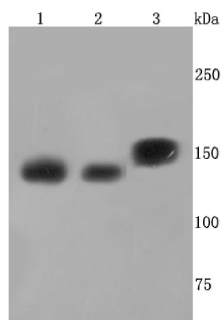


Fig1: Western blot analysis of SMC3 on different cells lysates using anti-SMC3 antibody at 1/1,000 dilution.

Positive control:

Line1: HepG2 cell lysate

Line2: NIH-3T3 cell lysate

Line3:PC12 cell lysate

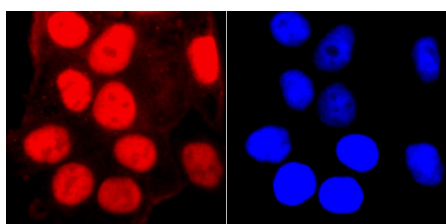


Fig2: ICC staining SMC3 in HeLa cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

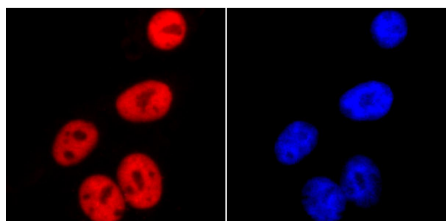


Fig3: ICC staining SMC3 in HepG2 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

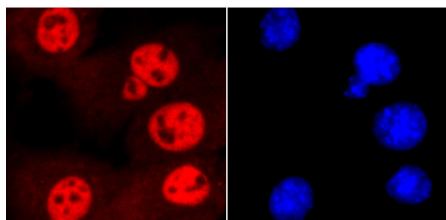


Fig4: ICC staining SMC3 in NIH-3T3 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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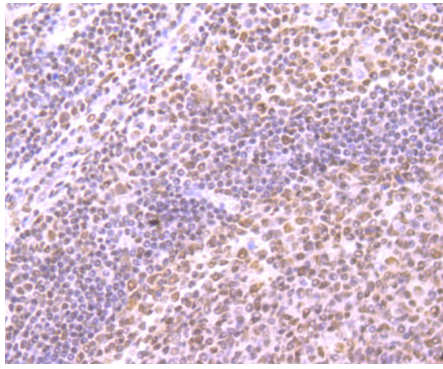


Fig5: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-SMC3 antibody. Counter stained with hematoxylin.

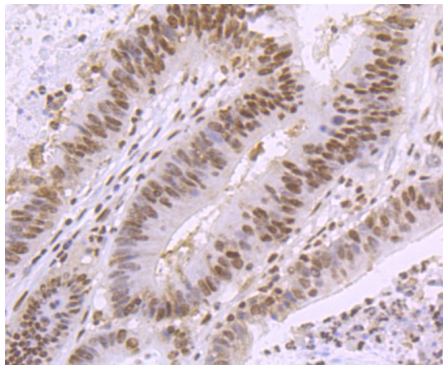


Fig6: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-SMC3 antibody. Counter stained with hematoxylin.

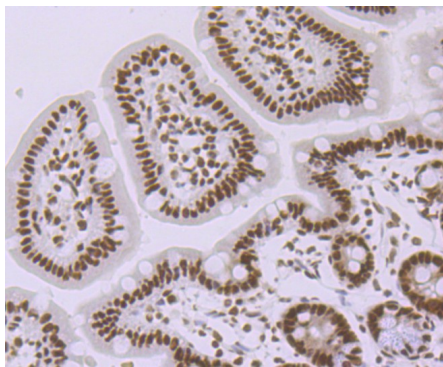


Fig7: Immunohistochemical analysis of paraffin-embedded mouse colon tissue using anti-SMC3 antibody. Counter stained with hematoxylin.

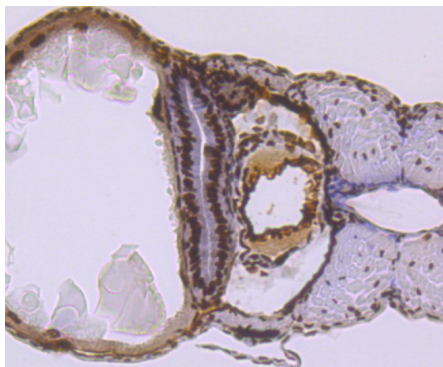


Fig8: Immunohistochemical analysis of paraffin-embedded zebrafish tissue using anti-SMC3 antibody. Counter stained with hematoxylin.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Kracker S et al. An inherited immunoglobulin class-switch recombination deficiency associated with a defect in the INO80 chromatin remodeling complex. *J Allergy Clin Immunol* 135:998-1007.e6 (2015).
2. Qiu Z et al. Functional interactions between NURF and Ctf regulate gene expression. *Mol Cell Biol* 35:224-37 (2015).

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