abcam

Product datasheet

Anti-SMC3 antibody ab9263

★★★★★ 7 Abreviews 84 References 4 图像

概述

产品名称 Anti-SMC3抗体

描述 兔多克隆抗体to SMC3

宿主 Rabbit

经測试应用适用于: IP, WB, IHC-P种属反应性与反应: Mouse, Human

预测可用于: Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Dog, Turkey, Pig, Chimpanzee,

Rhesus monkey, Gorilla, Orangutan, Platypus 🔷

免疫原 Synthetic peptide corresponding to Human SMC3 conjugated to keyhole limpet haemocyanin.

Which represents a portion within the last 100 amino acids GenBank PID 4885399.

阳性对照 WB: HEK293T, HeLa, Jurkat, LNCaP, U2OS, A-549, TCMK-1, and NIH/3T3 whole cell lysate;

IHC-P: Human breast carcinoma and mouse renal cell carcinoma; IP: Lysate from HEK293T cells.

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle.

存储溶液 pH: 7

Preservative: 0.09% Sodium azide

Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris

纯**度** Immunogen affinity purified

纯**化说明** Antibodies were affinity purified using the peptide immobilized on solid support. Antibody

concentration was determined by extinction coefficient: absorbance at 280 nmof 1.4 equals 1.0

mg of lgG.

克隆 多克隆

同种型 IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab9263于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IP	*** <u>*</u>	Use at 2-10 μg/mg of lysate.
WB	★★★★★ (3)	1/10000 - 1/25000. Detects a band of approximately 140 kDa (predicted molecular weight: 141.5 kDa).
IHC-P		1/1000 - 1/5000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

靶标

功能

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 plays also an important role in spindle pole assembly during mitosis and in chromosomes movement.

疾病相关

Defects in SMC3 are the cause of Cornelia de Lange syndrome type 3 (CDLS3) [MIM:610759]. CDLS is a dominantly inherited multisystem developmental disorder characterized by growth and cognitive retardation, abnormalities of the upper limbs, gastroesophageal dysfunction, cardiac, ophthalmologic and genitourinary anomalies, hirsutism, and characteristic facial features. CDSL3 is a mild form with absence of major structural anomalies typically associated with CDLS. The phenotype in some instances approaches that of apparently non-syndromic mental retardation.

序列相似性

Belongs to the SMC family. SMC3 subfamily.

结构域

The flexible hinge domain, which separates the large intramolecular coiled coil regions, allows the heterotypic interaction with the corresponding domain of SMC1A or SMC1B, forming a V-shaped heterodimer. The two heads of the heterodimer are then connected by different ends of the cleavable RAD21 protein, forming a ring structure.

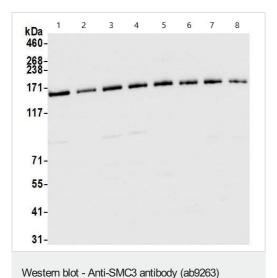
翻译后修饰

Phosphorylated upon DNA damage, probably by ATM or ATR.

Acetylation at Lys-105 and Lys-106 by ESCO1 is important for genome stability and S phase sister chromatid cohesion. Regulated by DSCC1, it is required for processive DNA synthesis, coupling sister chromatid cohesion establishment during S phase to DNA replication.

细胞定位

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.



All lanes: Anti-SMC3 antibody (ab9263) at 0.04 µg/ml

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

Lane 2: HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 3 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate

Lane 4 : LNCaP (human prostate cancer cell line) whole cell lysateLane 5 : U-2 OS (human bone osteosarcoma epithelial cell line)

whole cell lysate

Lane 6: A549 (human lung carcinoma cell line) whole cell lysate

Lane 7: TCMK-1 (mouse epithelial cell line from kidney transformed with SV40 viral antigen) whole cell lysate

Lane 8 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

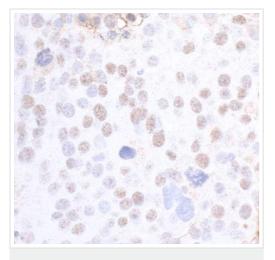
Predicted band size: 141.5 kDa

Exposure time: 3 seconds

Lysates prepared using NETN lysis buffer.

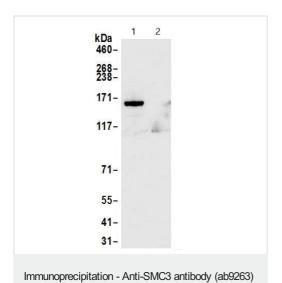
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-SMC3 antibody (ab9263)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labeling SMC3 with ab9263 at 1/5000 dilution. Heat mediated antigen retrieval was performed using citrate buffer pH 6.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse renal cell carcinoma tissue labeling SMC3 with ab9263 at 1/5000 dilution. Heat mediated antigen retrieval was performed using citrate buffer pH 6.





Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HEK293T cells prepared using NETN lysis buffer.

Lane 1: ab9263 used for IP at 6 µg per reaction

Lane 2: Control IgG

For blotting immunoprecipitated SMC3, ab9263 was used at 0.04 $\mu g/mL$.

Detection: Chemiluminescence with an exposure time of 3 seconds.

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