



A Reliable Research Partner in Life Science and Medicine

Recombinant SMC1A Monoclonal Antibody

catalog number: AN301986L

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Reactivity Human; Mouse

Immunogen Peptide. This information is proprietary to PTMab.

 Host
 Rabbit

 Isotype
 IgG, κ

 Clone
 A706

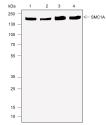
Purification Protein Apurified

Buffer PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

Applications Recommended Dilution

WB 1:1000-1:2000

Data



Western Blot with SMC1A Monoclonal Antibody at dilution of 1:2000. Lane 1: SW480, Lane 2: HepG2, Lane 3: 4T1, Lane

4: NIH/3T3

Observed-MW:160 kDa Calculated-MW:141 kDa

Preparation & Storage

Storage Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.

Shipping Ice bag

Background

he cohesin complex consists of a heterodimer between SMC1 (SMC1A or B) and SMC3, bound by additional RAD21 and STAG proteins (STAG1, 2, or 3). These proteins form a ring-like structure that mediates the cohesion of two sister chromatids after DNA replication in S phase. RAD21 and STAG2 are phosphorylated by Polo-like kinase (PLK) during prophase, which leads to the dissociation of cohesin complexes from the chromosome arms; however, cohesin remains bound to centromeres until anaphase. RAD21 is cleaved by separin/ESPL1 in anaphase, which leads to dissociation of the remaining cohesin from centromeres, enabling sister chromatids to segregate during mitosis. RAD21 is also cleaved by caspase-3 and caspase-7 during apoptosis, resulting in a 64 kDa carboxy-terminal cleavage product that translocates to the cytoplasm and may help to trigger apoptosis. In addition to mediating cohesion of sister chromatids, the cohesin complex plays important roles in gene regulation and DNA repair, as SMC1 and SMC3 are both phosphorylated by ATM and ATR kinases upon DNA damage.

For Research Use Only

 Toll-free: 1-888-852-8623
 Tel: 1-832-243-6086
 Fax: 1-832-243-6017

 Web: www.elabscience.com
 Email: techsupport@elabscience.com
 Rev. V1.0