

## SMC1 phospho Ser957 antibody (pAb)

**Catalog Nos:** 39631, 39632

**RRID:** AB\_2793282

**Isotype:** IgG

**Application(s):** WB

**Reactivity:** Human

**Volumes:** 200 µl, 10 µl

**Purification:** Affinity Purified

**Host:** Rabbit

**Molecular Weight:** 160 kDa

**Background:** The Structural Maintenance of Chromosomes (SMC) family proteins play critical roles in various nuclear events that require structural changes of chromosomes, including mitotic chromosome organization, DNA recombination and repair and global transcriptional repression. SMC1 has a myosin-like ATPase domain that serves as a molecular motor to help organize chromatin and is part of the cohesin complex that facilitates chromosome cohesion during the cell cycle. SMC1 and SMC3 form a heterodimeric complex required for metaphase progression in mitotic cells. SMC1 is also involved in DNA damage repair. Subsequent to double strand DNA breaks, SMC1 is phosphorylated by the ATM kinase. Phosphorylated SMC1 is crucial to the successful repair of DNA damage. Defects in SMC1 isoform A are the cause of Cornelia de Lange syndrome type 2, an inherited developmental disorder associated with malformations affecting multiple systems.

**Immunogen:** This SMC1 phospho Ser957 antibody was raised against a peptide containing phospho-serine 957 of human SMC1.

**Buffer:** Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

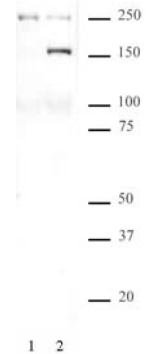
### Application Notes:

Applications Validated by Active Motif:

WB: 1:500 - 1:1,000 dilution

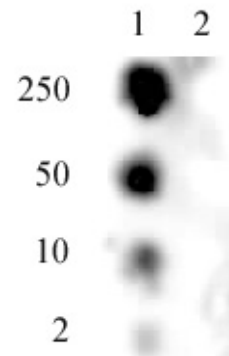
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



### SMC1 phospho Ser957 pAb tested by Western blot.

Nuclear extract of HeLa cells (20 µg per lane) probed with Catalog No. 39631 (1:1,000 dilution). Lane 1: untreated cells. Lane 2: cells treated with etoposide (100 µM for 2hrs).



### SMC1 phospho Ser957 pAb tested by dot blot analysis.

Dot blot analysis was used to confirm the specificity of SMC1 phospho Ser957 pAb for phospho Ser957 of SMC1. Phosphorylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at 1 µg/ml. The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: peptide phosphorylated at serine 957. Lane 2: unmodified peptide containing serine 957.