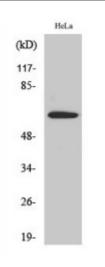


## Anti-Sgo1 antibody



Description

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Rabbit polyclonal to Sgo1.

Model STJ95640

**Host** Rabbit

**Reactivity** Human

**Applications** ELISA, IHC, WB

Immunogen Synthesized peptide derived from human Sgo1

**Immunogen Region** 240-320 aa, Internal

**Gene ID** <u>151648</u>

Gene Symbol SGO1

**Dilution range** WB 1:500-1:2000IHC 1:100-1:300ELISA 1:20000

**Specificity** Sgo1 Polyclonal Antibody detects endogenous levels of Sgo1 protein.

**Tissue Specificity** Widely expressed. Highly expressed in testis. Expressed in lung, small

intestine, breast, liver and placenta. Strongly overexpressed in 90% of breast

cancers tested.

**Purification** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

Protein Name Shugoshin 1 Serologically defined breast cancer antigen NY-BR-85

Shugoshin-like 1

Molecular Weight 64 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:25088OMIM:609168

Alternative Names Shugoshin 1 Serologically defined breast cancer antigen NY-BR-85

Shugoshin-like 1

**Function** Plays a central role in chromosome cohesion during mitosis by preventing

premature dissociation of cohesin complex from centromeres after prophase, when most of cohesin complex dissociates from chromosomes arms. May act by preventing phosphorylation of the STAG2 subunit of cohesin complex at the centromere, ensuring cohesin persistence at centromere until cohesin cleavage by ESPL1/separase at anaphase. Essential for proper chromosome segregation during mitosis and this function requires interaction with

PPP2R1A. Its phosphorylated form is necessary for chromosome congression and for the proper attachment of spindle microtubule to the kinetochore. Necessary for kinetochore localization of PLK1 and CENPF. May play a role in the tension sensing mechanism of the spindle-assembly checkpoint by regulating PLK1 kinetochore affinity. Isoform 3 plays a role in maintaining centriole cohesion involved in controlling spindle pole integrity. Involved in

centromeric enrichment of AUKRB in prometaphase.

**Sequence and Domain Family** The KEN box and D-box 3 are required for its ubiquitination and degradation.

Cellular Localization Nucleus Chromosome, centromere Chromosome, centromere, kinetochore

Cytoplasm, cytoskeleton, spindle pole Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Localizes to the inner centromere throughout

prophase until metaphase and disappears at anaphase. Centromeric

localization requires the presence of BUB1 and the interaction with PPP2R1A . Colocalizes with NEK2 at the kinetochore . Colocalizes with and SS18L1 at the kinetochore . Phosphorylation by AUKRB and the presence of BUB1 are required for localization to the kinetochore . Isoform 1 primarily localizes to kinetochores during G2 phase and mitotic prophase, metaphase, and anaphase and does not appear to be associated with kinetochores during late mitosis . Isoform 3 is found at the centrosome in interphase and at spindle poles in mitosis and its spindle pole localization is PLK1 dependent . Isoform 3 does

not localize to kinetochores during any stages of the cell cycle.

**Post-translational** Ubiquitinated and degraded during mitotic exit by APC/C-Cdh1.

Phosphorylation by NEK2 is essential for chromosome congression in mitosis

and for the proper attachment of spindle microtubule to the kinetochore.

Phosphorylated by PLK1 and AUKRB.

**Modifications**