Product name:	Sgo1 Rabbit Polyclonal Antibody
Cat number:	ABN17827
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human SGOL1. AA range:271-320
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight:	64kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by this gene is a member of the shugoshin family of proteins. This protein is thought to protect centromeric cohesin from cleavage during mitotic prophase by preventing phosphorylation of a cohesin subunit. Reduced expression of this gene leads to the premature loss of centromeric cohesion, mis-segregation of sister chromatids, and mitotic arrest. Evidence suggests that this protein also protects a small subset of cohesin found along the length of the chromosome arms during mitotic prophase. An isoform lacking exon 6 has been shown to play a role in the cohesion of centrioles (PMID: 16582621 and PMID:18331714). Mutations in this gene have been associated with Chronic Atrial and Intestinal Dysrhythmia (CAID) syndrome, characterized by the co-occurrence of Sick Sinus Syndrome (SSS) and Chronic Intestinal Pseudo-obstruction (CIPO) within the first four decades of life (PMID:25282101). Fibrodevelopmental stage:Appears in prophase cells and remains present until metaphase. Strongly decreases at the onset of anaphase and completely disapears at telophase. Not present in interphase cells (at protein level).,domain:The D-box (destruction box) mediates the interaction with APC proteins, and may act as a recognition signal for degradation via the ubiquitin-proteasome pathway.,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.,miscellaneous:Strongly overexpressed in 90% of breast cancers tested.,PTM:Ubiquitinated by the anaphase promoting complex (APC) at the onset of anaphase, conducting to its degradation.,similarity:Belongs to the shugoshin family.,subcellular location:Localizes to the centromere throughout prophase until metaphase and disappears at anaphase. BUB1 is required for centromeric localization. During prometaphase, it localizes to a single focus, while at metaphase, it localizes to 2 spots corresponding to the 2 centromeres.,subunit:Interacts with PPP2CA (or PPP2CB), PPP2R1B, PPP2R5A, PPP2R5B, PPP2R5C, PPP2R5D, PPP2R5E, SET, LRRC59, RBM10 (or RBM5), RPL10A, RPL28, RPL7, RPL7A and RPLP1. Interaction with protein phosphatase 2A occurs most probably through direct binding to the regulatory B56 subunits: PPP2R1B, PPP2R5A, PPP2R5B, PPP2R5C, PPP2R5D, PPP2R5E.,tissue specificity:Widely expressed. Highly expressed in testis. Expressed in lung, small intestine, breast, liver and placenta.,