Summary

Production Name	Sgo1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SGOL1
Alternative Names	SGOL1; SGO1; Shugoshin-like 1; hSgo1; Serologically defined breast cancer antigen NY-BR-85
Gene ID	151648.0
SwissProt ID	Q5FBB7.The antiserum was produced against synthesized peptide derived from human SGOL1. AA range:271-320

Application

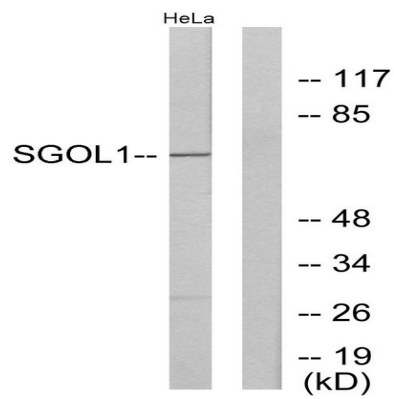|	
Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000
Molecular Weight	64kD

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.,
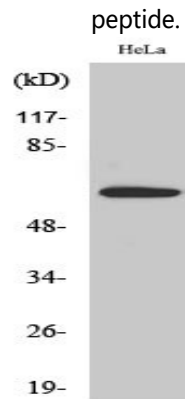
Research Area

Oocyte meiosis;

Image Data

Western blot analysis of lysates from HeLa cells, using SGOL1 Antibody. The lane on the right is blocked with the synthesized peptide.

Western Blot analysis of various cells using Sgo1 Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit　(SC-003,Inventbiotech,MN,USA)　.

Note
For research use only.