

## Product datasheet for PH313965

### Shugoshin (SGO1) (NM\_001012411) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	SGOL1 MS Standard C13 and N15-labeled recombinant protein (NP_001012411)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC213965
Predicted MW:	31.1 kDa
Protein Sequence:	>RC213965 representing NM_001012411 Red=Cloning site Green=Tags(s)  MAKERCLKKSFDQSLIEDIKKRMKEKRNKNLAEIGKRRSFAAPCQIITNTSTLLKNYQDNNKMLVLALEN EKSKVKEAQDIIILQLRKECYLLTCQLYALKGKLT SQQTVEPAQNQEICSSGMDPNSSRNL FVKDL PQ IPLEETELPGQGESFQIEDQIPTIPQDTLGVDFDSATPPETQQSPHLSLKDITNVS LYPVVKIRRLSLS P KKNKASPAVALPKRRCTASVNYKEPTLASKLRRGDPFTDLCFLNSPIFKQKDLRRSKSMKQIQ  TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_001012411</a>
RefSeq Size:	1200
RefSeq ORF:	825
Synonyms:	CAID; NY-BR-85; SGO; SGOL1
Locus ID:	151648
UniProt ID:	<a href="#">Q5FBB7</a>



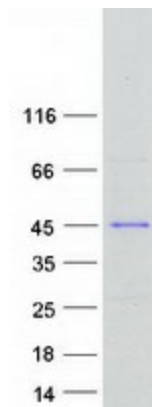
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Cytogenetics: 3p24.3

**Summary:** 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). Fibroblast cells from CAID patients exhibited both increased cell proliferation and higher rates of senescence. Pseudogenes of this gene have been found on chromosomes 1 and 7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2015]

Protein Pathways: Oocyte meiosis

### Product images:



Coomassie blue staining of purified SGO1 protein (Cat# [TP313965]). The protein was produced from HEK293T cells transfected with SGO1 cDNA clone (Cat# [RC213965]) using MegaTran 2.0 (Cat# [TT210002]).