

## Product datasheet for TP316188L

### Shugoshin (SGO1) (NM\_001012413) Human Recombinant Protein

#### Product data:

|                                       |  |
|---------------------------------------|--|
| Product Type:                         | Recombinant Proteins   |
| Description:                          | Recombinant protein of human shugoshin-like 1 (S. pombe) (SGOL1), transcript variant C1, 1 mg  |
| Species:                              | Human  |
| Expression Host:                      | HEK293T  |
| Expression cDNA Clone or AA Sequence: | >RC216188 representing NM_001012413<br><b>Red</b> =Cloning site <b>Green</b> =Tags(s)  |
|                                       | <p>MAKERCLKKSFQDSLEDIKKRMKEKRNKNLAEIGKRRSFIAAPCQIITNTSTLLKNYQDNNKMLVLALEN<br/>EKSKVKEAQDIIQLRKECYLTCQLYALKGKLTSSQQTVEPAQNQEICSSGMDPNSDDSSRNLFVKDLPQ<br/>IPLEETELPGQGESFQIEATPPETQQSPHLSLKDITNVSYPVKIRRLSLSPPKKNKASPAVALPKRRCT<br/>ASVNYKEPTLASKLRRGDPFTDLCFLNSPIFKQKKDLRRSKKSMKQIQ</p> <p><b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b></p> |
| Tag:                                  | C-Myc/DDK  |
| Predicted MW:                         | 29.3 kDa   |
| Concentration:                        | >0.05 µg/µL as determined by microplate BCA method   |
| Purity:                               | > 80% as determined by SDS-PAGE and Coomassie blue staining  |
| Buffer:                               | 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol   |
| Preparation:                          | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.   |
| Note:                                 | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.   |
| Storage:                              | Store at -80°C.  |
| Stability:                            | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.  |
| RefSeq:                               | <u><a href="#">NP_001012413</a></u>  |
| Locus ID:                             | 151648   |



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UniProt ID: [Q5FBB7](#)

RefSeq Size: 1149

Cytogenetics: 3p24.3

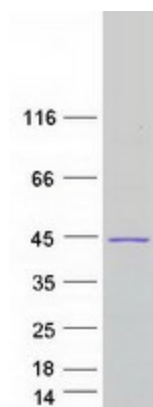
RefSeq ORF: 774

Synonyms: CAID; NY-BR-85; SGO; SGOL1

**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# [TP316188]). The protein was produced from HEK293T cells transfected with SGO1 cDNA clone (Cat# [RC216188]) using MegaTran 2.0 (Cat# [TT210002]).