Recombinant Human SGO1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. SGO1-4033H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	SGOL1 MS Standard C13 and N15-labeled recombinant protein (NP_001012413) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.

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Molecular Mass	29.3 kDa
AA Sequence	MAKERCLKKSFQDSLEDIKKRMKEKRNKNLAEIGKRRSFIAAPCQIITNTSTLLKNYQ DNNKMLVLALENEKSKVKEAQDIILQLRKECYYLTCQLYALKGKLTSQQTVEPAQNQ EICSSGMDPNSDDSSRNLFVKDLPQIPLEETELPGQGESFQIEATPPETQQSPHLSL KDITNVSLYPVVKIRRLSLSPKKNKASPAVALPKRRCTASVNYKEPTLASKLRRGDPF TDLCFLNSPIFKQKKDLRRSKKSMKQIQTRTRPLEQKLISEEDLAANDILDYKDDDDK V
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 μg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	SGO1 shugoshin 1 [Homo sapiens (human)]
Official Symbol	SGO1
Synonyms	SGO1; shugoshin 1; SGO; CAID; SGOL1; NY-BR-85; shugoshin 1; serologically defined breast cancer antigen NY-BR-85; shugoshin 1AB protein; shugoshin 1CD protein; shugoshin 1EF protein; shugoshin 1GH protein; shugoshin 1KL protein
Gene ID	151648

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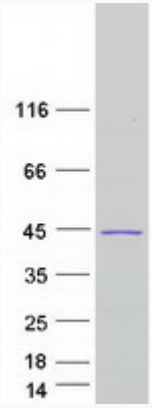
mRNA Refseq	NM_001012413
Protein Refseq	NP_001012413
MIM	609168
UniProt ID	Q5FBB7
SDS-PAGE	

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