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Product datasheet for RC215888L4V

SMC1 (SMC1A) (NM_006306) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	SMC1 (SMC1A) (NM_006306) Human Tagged ORF Clone Lentiviral Particle
Symbol:	SMC1
Synonyms:	CDLS2; DEE85; DXS423E; EIEE85; SB1.8; SMC1; SMC1alpha; SMC1L1; SMCB
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_006306
ORF Size:	3699 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC215888).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_006306.2
RefSeq Size:	9725 bp
RefSeq ORF:	3702 bp
Locus ID:	8243
UniProt ID:	Q14683
Cytogenetics:	Xp11.22
Domains:	SMC_N, SMC_C, KID
Protein Families:	Druggable Genome

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Protein Pathways: Cell cycle, Oocyte meiosis

MW: 143.1 kDa

Gene Summary: Proper cohesion of sister chromatids is a prerequisite for the correct segregation of chromosomes during cell division. The cohesin multiprotein complex is required for sister chromatid cohesion. This complex is composed partly of two structural maintenance of chromosomes (SMC) proteins, SMC3 and either SMC1B or the protein encoded by this gene. Most of the cohesin complexes dissociate from the chromosomes before mitosis, although those complexes at the kinetochore remain. Therefore, the encoded protein is thought to be an important part of functional kinetochores. In addition, this protein interacts with BRCA1 and is phosphorylated by ATM, indicating a potential role for this protein in DNA repair. This gene, which belongs to the SMC gene family, is located in an area of the X-chromosome that escapes X inactivation. Mutations in this gene result in Cornelia de Lange syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]