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Product datasheet for MR221566L4V

Smc1a (NM_019710) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Smc1a (NM_019710) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Smc1a
Synonyms:	5830426I24Rik; mKIAA0178; Sb1.8; SMC-1A; Smc1; Smc1alpha; Smc1l1; Smcb
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_019710
ORF Size:	3699 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR221566).
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_019710.2, NP_062684.2
RefSeq Size:	3980 bp
RefSeq ORF:	3702 bp
Locus ID:	24061
UniProt ID:	Q9CU62
Cytogenetics:	X F3

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Gene Summary: Involved in chromosome cohesion during cell cycle and in DNA repair. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, and works as a downstream effector in the ATM/NBS1 branch of S-phase checkpoint (By similarity). Central component of cohesin complex. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Involved in DNA repair via its interaction with BRCA1 and its related phosphorylation by ATM, or via its phosphorylation by ATR. Works as a downstream effector both in the ATM/NBS1 branch and in the ATR/MSH2 branch of S-phase checkpoint.[UniProtKB/Swiss-Prot Function]