

## Product datasheet for **TL303224**

### MMS19 Human shRNA Plasmid Kit (Locus ID 64210)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	MMS19 Human shRNA Plasmid Kit (Locus ID 64210)
Locus ID:	64210
Synonyms:	CIAO4; hMMS19; MET18; MMS19L
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	MMS19 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 64210). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001289403</a> , <a href="#">NM_001289404</a> , <a href="#">NM_001289405</a> , <a href="#">NM_022362</a> , <a href="#">NM_001330128</a> , <a href="#">NM_001351356</a> , <a href="#">NM_001351357</a> , <a href="#">NM_001351358</a> , <a href="#">NM_001351359</a> , <a href="#">NM_022362.1</a> , <a href="#">NM_022362.2</a> , <a href="#">NM_022362.3</a> , <a href="#">NM_022362.4</a> , <a href="#">NM_001289404.1</a> , <a href="#">NM_001289403.1</a> , <a href="#">NM_001289405.1</a> , <a href="#">BC002692</a> , <a href="#">BC006575</a> , <a href="#">BC007298</a> , <a href="#">BC009396</a> , <a href="#">BC033101</a> , <a href="#">BC080532</a> , <a href="#">BC117129</a> , <a href="#">BC143285</a> , <a href="#">NM_022362.5</a>
UniProt ID:	<a href="#">Q96T76</a>



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- Summary:** Key component of the cytosolic iron-sulfur protein assembly (CIA) complex, a multiprotein complex that mediates the incorporation of iron-sulfur cluster into apoproteins specifically involved in DNA metabolism and genomic integrity. In the CIA complex, MMS19 acts as an adapter between early-acting CIA components and a subset of cellular target iron-sulfur proteins such as ERCC2/XPD, FANCI and RTEL1, thereby playing a key role in nucleotide excision repair (NER), homologous recombination-mediated double-strand break DNA repair, DNA replication and RNA polymerase II (POL II) transcription (PubMed:22678362, PubMed:22678361, PubMed:29225034, PubMed:23585563). As part of the mitotic spindle-associated MMXD complex, plays a role in chromosome segregation, probably by facilitating iron-sulfur cluster assembly into ERCC2/XPD (PubMed:20797633). Indirectly acts as a transcriptional coactivator of estrogen receptor (ER), via its role in iron-sulfur insertion into some component of the TFIIH-machinery (PubMed:11279242).[UniProtKB/Swiss-Prot Function]
- shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.
- For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).