

Product datasheet for **MR226095L4V**

Rnf2 (NM_011277) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Rnf2 (NM_011277) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Rnf2
Synonyms:	AI326319; AI450156; AU019207; dinG; Ring1B
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_011277
ORF Size:	1008 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR226095).
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_011277.2
RefSeq Size:	3028 bp
RefSeq ORF:	1011 bp
Locus ID:	19821
UniProt ID:	Q9CQJ4
Cytogenetics:	1 G1



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Gene Summary:

E3 ubiquitin-protein ligase that mediates monoubiquitination of 'Lys-119' of histone H2A (H2AK119Ub), thereby playing a central role in histone code and gene regulation (PubMed:15525528, PubMed:22325148, PubMed:28596365). H2AK119Ub gives a specific tag for epigenetic transcriptional repression and participates in X chromosome inactivation of female mammals (PubMed:15525528, PubMed:28596365). May be involved in the initiation of both imprinted and random X inactivation (PubMed:15525528). Essential component of a Polycomb group (PcG) multiprotein PRC1-like complex, a complex class required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development (PubMed:22325148, PubMed:16710298). PcG PRC1 complex acts via chromatin remodeling and modification of histones, rendering chromatin heritably changed in its expressibility (PubMed:15525528, PubMed:22325148, PubMed:16710298). E3 ubiquitin-protein ligase activity is enhanced by BMI1/PCGF4 (PubMed:16710298). Acts as the main E3 ubiquitin ligase on histone H2A of the PRC1 complex, while RING1 may rather act as a modulator of RNF2/RING2 activity (PubMed:15525528, PubMed:16710298). Plays a role in the transcriptional repression of genes that are required for pluripotency in embryonic stem cells, thereby contributing to differentiation of the ectodermal and endodermal germ layers (PubMed:22226355). Association with the chromosomal DNA is cell-cycle dependent. In resting B- and T-lymphocytes, interaction with AURKB leads to block its activity, thereby maintaining transcription in resting lymphocytes (PubMed:24034696).[UniProtKB/Swiss-Prot Function]