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Product datasheet for TL509722

Ezh2 Mouse shRNA Plasmid (Locus ID 14056)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Ezh2 Mouse shRNA Plasmid (Locus ID 14056)
Locus ID:	14056
Synonyms:	Enx-1; Enx1h; KMT6; mKIAA4065
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Ezh2 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 14056). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC003772, BC016391, BC079538, NM_001146689, NM_007971, NM_007971.1, NM_007971.2, NM_001146689.1
UniProt ID:	Q61188

View online »

Summary:

Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Displays a preference for substrates with less methylation, loses activity when progressively more methyl groups are incorporated into H3K27, H3K27me0 > H3K27me1 > H3K27me2. Compared to EZH1-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXA7, HOXB6 and HOXC8. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4 and the nuclear receptor RORA. Regulates the circadian clock via histone methylation at the promoter of the circadian genes. Essential for the CRY1/2-mediated repression of the transcriptional activation of PER1/2 by the CLOCK-ARNTL/BMAL1 heterodimer; involved in the di and trimethylation of 'Lys-27' of histone H3 on PER1/2 promoters which is necessary for the CRY1/2 proteins to inhibit transcription.[UniProtKB/Swiss-Prot Function]

shRNA Design:

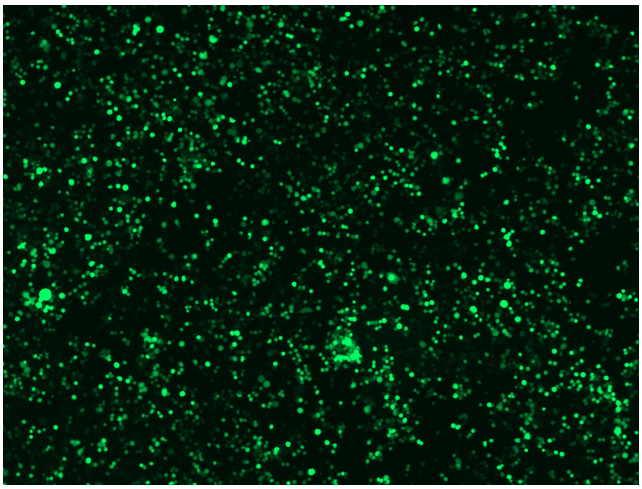
These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

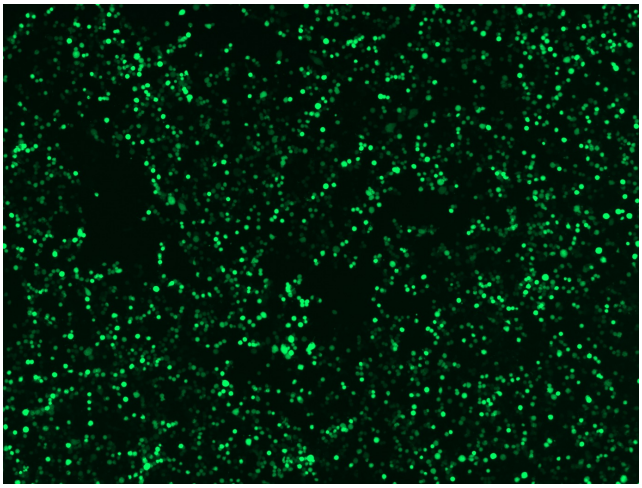
OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).

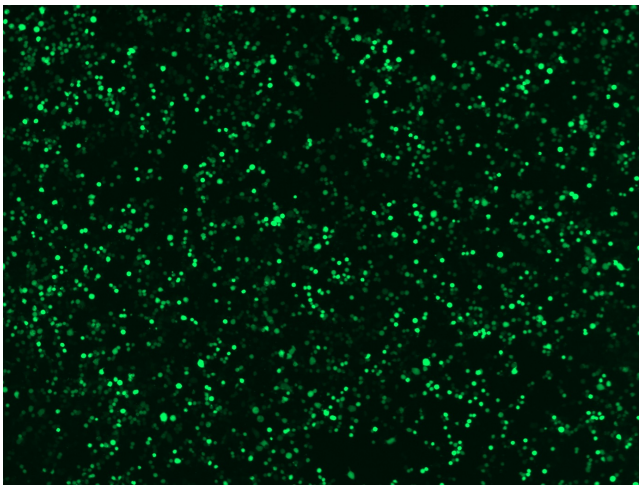
Product images:



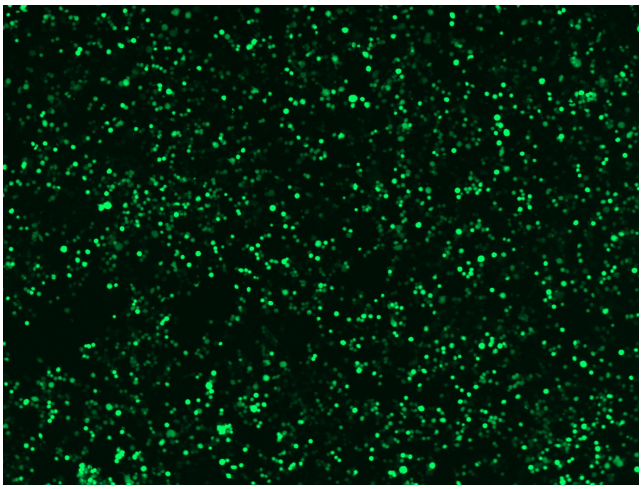
GFP signal was observed under microscope at 48 hours after transduction of TL509722A virus into HEK293 cells. TL509722A virus was prepared using lenti-shRNA TL509722A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL509722B virus into HEK293 cells. TL509722B virus was prepared using lenti-shRNA TL509722B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL509722C] virus into HEK293 cells. [TL509722C] virus was prepared using lenti-shRNA [TL509722C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL509722D] virus into HEK293 cells. [TL509722D] virus was prepared using lenti-shRNA [TL509722D] and [TR30037] packaging kit.