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Product datasheet for TR500546

Dnase1l3 Mouse shRNA Plasmid (Locus ID 13421)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Dnase1l3 Mouse shRNA Plasmid (Locus ID 13421)
Locus ID:	13421
Synonyms:	Dhp2; DNasegamma; Lsd
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Dnase1l3 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 13421). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC012671, NM_007870, NM_007870.1, NM_007870.2, NM_007870.3
UniProt ID:	O55070
Summary:	Has DNA hydrolytic activity. Is capable of both single- and double-stranded DNA cleavage, producing DNA fragments with 3'-OH ends (By similarity). Can cleave chromatin to nucleosomal units and cleaves nucleosomal and liposome-coated DNA (PubMed:15796714, PubMed:19154352, PubMed:12095301). Acts in internucleosomal DNA fragmentation (INDF) during apoptosis and necrosis. The role in apoptosis includes myogenic and neuronal differentiation, and BCR-mediated clonal deletion of self-reactive B cells (PubMed:12050166, PubMed:15167901, PubMed:17218958, PubMed:24312463). Is active on chromatin in apoptotic cell-derived membrane-coated microparticles and thus suppresses anti-DNA autoimmunity (PubMed:15796714, PubMed:27293190). Together with DNASE1, plays a key role in degrading neutrophil extracellular traps (NETs) (PubMed:29191910). NETs are mainly composed of DNA fibers and are released by neutrophils to bind pathogens during inflammation (PubMed:29191910). Degradation of intravascular NETs by DNASE1 and DNASE1L3 is required to prevent formation of clots that obstruct blood vessels and cause organ damage following inflammation (PubMed:29191910).[UniProtKB/Swiss-Prot Function]

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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).