

## Product datasheet for **TR319813**

### alpha Defensin 1 (DEFA1) Human shRNA Plasmid Kit (Locus ID 1667)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	alpha Defensin 1 (DEFA1) Human shRNA Plasmid Kit (Locus ID 1667)
Locus ID:	1667
Synonyms:	DEF1; DEFA2; HNP-1; HP-1; HP1; MRS
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	DEFA1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1667). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_004084</a> , <a href="#">NM_004084.1</a> , <a href="#">NM_004084.2</a> , <a href="#">NM_004084.3</a> , <a href="#">BC069423</a> , <a href="#">BC093791</a> , <a href="#">BC112188</a>
UniProt ID:	<a href="#">P59665</a>
Summary:	Defensins are a family of antimicrobial and cytotoxic peptides thought to be involved in host defense. They are abundant in the granules of neutrophils and also found in the epithelia of mucosal surfaces such as those of the intestine, respiratory tract, urinary tract, and vagina. Members of the defensin family are highly similar in protein sequence and distinguished by a conserved cysteine motif. The protein encoded by this gene, defensin, alpha 1, is found in the microbicidal granules of neutrophils and likely plays a role in phagocyte-mediated host defense. Several alpha defensin genes are clustered on chromosome 8. This gene differs from defensin, alpha 3 by only one amino acid. This gene and the gene encoding defensin, alpha 3 are both subject to copy number variation. [provided by RefSeq, Oct 2014]
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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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**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).