

## **Product datasheet for TR306555**

## OriGene Technologies, Inc.

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## ASAH3 (ACER1) Human shRNA Plasmid Kit (Locus ID 125981)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** ASAH3 (ACER1) Human shRNA Plasmid Kit (Locus ID 125981)

**Locus ID:** 125981

Synonyms: ALKCDase1; ASAH3

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: ACER1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

125981). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: NM 133492, NM 133492.1, NM 133492.2, BC112122, BC112124, NM 133492.3

UniProt ID: Q8TDN7

**Summary:** Ceramides are synthesized during epidermal differentiation and accumulate within the

interstices of the stratum corneum, where they represent critical components of the

epidermal permeability barrier. Excess cellular ceramide can trigger antimitogenic signals and induce apoptosis, and the ceramide metabolites sphingosine and sphingosine-1-phosphate (S1P) are important bioregulatory molecules. Ceramide hydrolysis in the nucleated cell layers regulates keratinocyte proliferation and apoptosis in response to external stress. Ceramide hydrolysis also occurs at the stratum corneum, releasing free sphingoid base that functions as an endogenous antimicrobial agent. ACER1 is highly expressed in epidermis and catalyzes the hydrolysis of very long chain ceramides to generate sphingosine (Houben et al., 2006 [PubMed 16477081]; Sun et al., 2008 [PubMed 17713573]).[supplied by OMIM, Jul 2010]

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 <u>techsupport@origene.com</u>. 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).