

## Product datasheet for **KN219758**

### Acid sphingomyelinase (SMPD1) Human Gene Knockout Kit (CRISPR)

#### Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	Acid sphingomyelinase
Locus ID:	6609
Components:	<p><b>KN219758G1</b>, Acid sphingomyelinase gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCAAAGACATCTCGGAGCCG</p> <p><b>KN219758G2</b>, Acid sphingomyelinase gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: AACCTGGCAGGATGCGCTTG</p> <p><b>KN219758D</b>, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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 ACTGCGGCCA ACTTACTTCT GACAACGATC GGAGGACCGA AGGAGCTAAC CGCTTTTTTG CACAACATGG  
 GGGATCATGT AACTCGCCTT

**GE100003**, scramble sequence in pCas-Guide vector

**Disclaimer:**

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

**RefSeq:**

[NM\\_000543](#), [NM\\_001007593](#), [NM\\_001318087](#), [NM\\_001318088](#), [NR\\_027400](#), [NR\\_134502](#), [NM\\_001365135](#)

**UniProt ID:**

[P17405](#)

**Synonyms:**

ASM; ASMASE; NPД

**Summary:**

The protein encoded by this gene is a lysosomal acid sphingomyelinase that converts sphingomyelin to ceramide. The encoded protein also has phospholipase C activity. Defects in this gene are a cause of Niemann-Pick disease type A (NPA) and Niemann-Pick disease type B (NPB). Multiple transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2010]

Product images:

