

## **Product datasheet for TR309208**

## OriGene Technologies, Inc.

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## Syntrophin alpha 1 (SNTA1) Human shRNA Plasmid Kit (Locus ID 6640)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Syntrophin alpha 1 (SNTA1) Human shRNA Plasmid Kit (Locus ID 6640)

Locus ID: 6640

Synonyms: dJ1187J4.5; LQT12; SNT1; TACIP1

**Vector:** pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: SNTA1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

6640). 5µg purified plasmid DNA per construct

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

**RefSeq:** NM 003098, NM 003098.1, NM 003098.2, BC026215, BC026215.2, BC113813, NM 003098.3

UniProt ID: Q13424

**Summary:** Syntrophins are cytoplasmic peripheral membrane scaffold proteins that are components of

the dystrophin-associated protein complex. This gene is a member of the syntrophin gene family and encodes the most common syntrophin isoform found in cardiac tissues. The N-terminal PDZ domain of this syntrophin protein interacts with the C-terminus of the poreforming alpha subunit (SCN5A) of the cardiac sodium channel Nav1.5. This protein also associates cardiac sodium channels with the nitric oxide synthase-PMCA4b (plasma

membrane Ca-ATPase subtype 4b) complex in cardiomyocytes. This gene is a susceptibility locus for Long-QT syndrome (LQT) - an inherited disorder associated with sudden cardiac death from arrhythmia - and sudden infant death syndrome (SIDS). This protein also associates with dystrophin and dystrophin-related proteins at the neuromuscular junction and alters intracellular calcium ion levels in muscle tissue. [provided by RefSeq, Jan 2013]

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 <u>custom shRNA service</u>.







## 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).