

## **Product datasheet for TG312135**

## OriGene Technologies, Inc.

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## SHIP (INPP5D) Human shRNA Plasmid Kit (Locus ID 3635)

**Product data:** 

**Product Type:** shRNA Plasmids

Product Name: SHIP (INPP5D) Human shRNA Plasmid Kit (Locus ID 3635)

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Synonyms: hp51CN; p150Ship; SHIP; SHIP-1; SHIP1; SIP-145

**Vector:** pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

**Components:** INPP5D - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 3635).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

**RefSeq:** NM 001017915, NM 005541, NM 005541.1, NM 005541.2, NM 005541.3, NM 005541.4,

NM 001017915.1, NM 001017915.2, BC027960, BC062985, BC099920, BC113580, BC113582,

BM800110

UniProt ID: Q92835

**Summary:** This gene is a member of the inositol polyphosphate-5-phosphatase (INPP5) family and

encodes a protein with an N-terminal SH2 domain, an inositol phosphatase domain, and two

C-terminal protein interaction domains. Expression of this protein is restricted to hematopoietic cells where its movement from the cytosol to the plasma membrane is mediated by tyrosine phosphorylation. At the plasma membrane, the protein hydrolyzes the

5' phosphate from phosphatidylinositol (3,4,5)-trisphosphate and inositol-1,3,4,5-

tetrakisphosphate, thereby affecting multiple signaling pathways. The protein is also partly localized to the nucleus, where it may be involved in nuclear inositol phosphate signaling processes. Overall, the protein functions as a negative regulator of myeloid cell proliferation and survival. Mutations in this gene are associated with defects and cancers of the immune system. Deficiencies in the encoded protein, SHIP1, have been associated with Inflammatory Bowel Disease types such as Crohn's Disease and Ulcerative Colitis. Alternative splicing of this

gene results in multiple transcript variants. [provided by RefSeq, Jul 2020]







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="mailto:custom shRNA service">custom shRNA service</a>.

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).