

Product datasheet for TR501348

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Pias2 Mouse shRNA Plasmid (Locus ID 17344)

Product data:

Product Type: shRNA Plasmids

Product Name: Pias2 Mouse shRNA Plasmid (Locus ID 17344)

Locus ID: 17344

Synonyms: 6330408K17Rik; Al462206; ARIP3; AU018068; Dib; Miz1; PIASxalpha; PIASxb; PIASxbeta; SIZ2

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: Pias2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

17344). 5µg purified plasmid DNA per construct

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

RefSeq: BC005596, BC034711, NM 001164167, NM 001164168, NM 001164169, NM 001164170,

NM 008602, NM 001164170.1, NM 001164168.1, NM 008602.1, NM 008602.2, NM 008602.3,

NM 008602.4, NM 001164167.1, NM 001164169.1

UniProt ID: Q8C5D8

Summary: Functions as an E3-type small ubiquitin-like modifier (SUMO) ligase, stabilizing the interaction

between UBE2I and the substrate, and as a SUMO-tethering factor. Plays a crucial role as a transcriptional coregulation in various cellular pathways, including the STAT pathway, the p53 pathway and the steroid hormone signaling pathway. The effects of this transcriptional coregulation, transactivation or silencing may vary depending upon the biological context and

PIAS2 isoform studied. However, it seems to be mostly involved in gene silencing. Binds to sumoylated ELK1 and enhances its transcriptional activity by preventing recruitment of HDAC2 by ELK1, thus reversing SUMO-mediated repression of ELK1 transactivation activity. Isoform PIASx-beta, but not isoform PIASx-alpha, promotes MDM2 sumoylation. Isoform PIASx-alpha promotes PARK7 sumoylation. Isoform PIASx-beta promotes NCOA2 sumoylation more efficiently than isoform PIASx-alpha (By similarity). Sumoylates PML at'Lys-65' and 'Lys-

160' (By similarity).[UniProtKB/Swiss-Prot Function]







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 techsupport@origene.com. 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).