

## Product datasheet for **TR304400**

### **GAPex 5 (GAPVD1) Human shRNA Plasmid Kit (Locus ID 26130)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	GAPex 5 (GAPVD1) Human shRNA Plasmid Kit (Locus ID 26130)
<b>Locus ID:</b>	26130
<b>Synonyms:</b>	GAPex-5; GAPEX5; RAP6
<b>Vector:</b>	pRS (TR20003)
<b>E. coli Selection:</b>	Ampicillin
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	GAPVD1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 26130). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<a href="#">NM_001282679</a> , <a href="#">NM_001282680</a> , <a href="#">NM_001282681</a> , <a href="#">NM_001330777</a> , <a href="#">NM_001330778</a> , <a href="#">NM_015635</a> , <a href="#">NM_001354293</a> , <a href="#">NM_001354294</a> , <a href="#">NM_001354295</a> , <a href="#">NM_001354296</a> , <a href="#">NM_001354297</a> , <a href="#">NM_001354298</a> , <a href="#">NM_001354299</a> , <a href="#">NM_001354300</a> , <a href="#">NM_001354301</a> , <a href="#">NR_148732</a> , <a href="#">NR_148733</a> , <a href="#">NM_015635.1</a> , <a href="#">NM_015635.2</a> , <a href="#">NM_015635.3</a> , <a href="#">NM_001282681.1</a> , <a href="#">NM_001282680.1</a> , <a href="#">NM_001282679.1</a> , <a href="#">BC010027</a> , <a href="#">BC013635</a> , <a href="#">BC021119</a> , <a href="#">BC110990</a> , <a href="#">BC114937</a> , <a href="#">BC114962</a> , <a href="#">BM009537</a> , <a href="#">BM477592</a> , <a href="#">NM_001282680.2</a> , <a href="#">NM_001282681.2</a>
<b>UniProt ID:</b>	<a href="#">Q14C86</a>
<b>Summary:</b>	Acts both as a GTPase-activating protein (GAP) and a guanine nucleotide exchange factor (GEF), and participates in various processes such as endocytosis, insulin receptor internalization or LC2A4/GLUT4 trafficking. Acts as a GEF for the Ras-related protein RAB31 by exchanging bound GDP for free GTP, leading to regulate LC2A4/GLUT4 trafficking. In the absence of insulin, it maintains RAB31 in an active state and promotes a futile cycle between LC2A4/GLUT4 storage vesicles and early endosomes, retaining LC2A4/GLUT4 inside the cells. Upon insulin stimulation, it is translocated to the plasma membrane, releasing LC2A4/GLUT4 from intracellular storage vesicles. Also involved in EGFR trafficking and degradation, possibly by promoting EGFR ubiquitination and subsequent degradation by the proteasome. Has GEF activity for Rab5 and GAP activity for Ras.[UniProtKB/Swiss-Prot Function]



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**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](mailto: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](mailto: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).