

## Product datasheet for **TG304291**

### GNPTAB Human shRNA Plasmid Kit (Locus ID 79158)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	GNPTAB Human shRNA Plasmid Kit (Locus ID 79158)
Locus ID:	79158
Synonyms:	GNPTA; ICD
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GNPTAB - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 79158). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_024312</a> , <a href="#">NM_024312.1</a> , <a href="#">NM_024312.2</a> , <a href="#">NM_024312.3</a> , <a href="#">NM_024312.4</a> , <a href="#">BC131787</a> , <a href="#">BC002779</a> , <a href="#">BC042615</a> , <a href="#">BC071687</a> , <a href="#">BC094884</a> , <a href="#">NM_024312.5</a>
UniProt ID:	<a href="#">Q3T906</a>
Summary:	This gene encodes two of three subunit types of the membrane-bound enzyme N-acetylglucosamine-1-phosphotransferase, a heterohexameric complex composed of two alpha, two beta, and two gamma subunits. The encoded protein is proteolytically cleaved at the Lys928-Asp929 bond to yield mature alpha and beta polypeptides while the gamma subunits are the product of a distinct gene (GeneID 84572). In the Golgi apparatus, the heterohexameric complex catalyzes the first step in the synthesis of mannose 6-phosphate recognition markers on certain oligosaccharides of newly synthesized lysosomal enzymes. These recognition markers are essential for appropriate trafficking of lysosomal enzymes. Mutations in this gene have been associated with both mucopolipidosis II and mucopolipidosis IIIA. [provided by RefSeq, May 2010]
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="#">custom shRNA service</a> .



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**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).