

## Product datasheet for **TL310616**

### TRF4 2 (PAPD5) Human shRNA Plasmid Kit (Locus ID 64282)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	TRF4 2 (PAPD5) Human shRNA Plasmid Kit (Locus ID 64282)
Locus ID:	64282
Synonyms:	PAPD5; TRF4-2; TUT3
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	PAPD5 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 64282). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001040284</a> , <a href="#">NM_001040285</a> , <a href="#">NM_022447</a> , <a href="#">NM_001040284.1</a> , <a href="#">NM_001040284.2</a> , <a href="#">NM_001040285.1</a> , <a href="#">NM_001040285.2</a> , <a href="#">BC035270</a> , <a href="#">BC089405</a> , <a href="#">BC143706</a> , <a href="#">BC156329</a> , <a href="#">BC157079</a> , <a href="#">NM_001365323</a> , <a href="#">NM_001365324</a> , <a href="#">NM_001040285.3</a>
UniProt ID:	<a href="#">Q8NDF8</a>



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<b>Summary:</b>	<p>Terminal nucleotidyltransferase that catalyzes preferentially the transfert of ATP and GTP on RNA 3' poly(A) tail creating a heterogeneous 3' poly(A) tail leading to mRNAs stabilization by protecting mRNAs from active deadenylation (PubMed:21788334, PubMed:30026317). Also functions as a catalytic subunit of a TRAMP-like complex which has a poly(A) RNA polymerase activity and is involved in a post-transcriptional quality control mechanism. Polyadenylation with short oligo(A) tails is required for the degradative activity of the exosome on several of its nuclear RNA substrates. Doesn't need a cofactor for polyadenylation activity (in vitro) (PubMed:21788334, PubMed:21855801). Required for cytoplasmic polyadenylation of mRNAs involved in carbohydrate metabolism, including the glucose transporter SLC2A1/GLUT1 (PubMed:28383716). Plays a role in replication-dependent histone mRNA degradation, probably through terminal uridylation of mature histone mRNAs. May play a role in sister chromatid cohesion (PubMed:18172165). Mediates 3' adenylation of the microRNA MIR21 followed by its 3'-to-5' trimming by the exoribonuclease PARN leading to degradation (PubMed:25049417). Mediates 3' adenylation of H/ACA box snoRNAs (small nucleolar RNAs) followed by its 3'-to-5' trimming by the exoribonuclease PARN which enhances snoRNA stability and maturation (PubMed:22442037).[UniProtKB/Swiss-Prot Function]</p>
<b>shRNA Design:</b>	<p>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>.</p>
<b>Performance Guaranteed:</b>	<p>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.</p> <p>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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>