

Product datasheet for **TR308680**

Thyroid Peroxidase (TPO) Human shRNA Plasmid Kit (Locus ID 7173)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Thyroid Peroxidase (TPO) Human shRNA Plasmid Kit (Locus ID 7173)
Locus ID:	7173
Synonyms:	MSA; TDH2A; TPX
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	TPO - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 7173). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000547 , NM_001206744 , NM_001206745 , NM_175719 , NM_175720 , NM_175721 , NM_175722 , NM_000547.1 , NM_000547.2 , NM_000547.3 , NM_000547.4 , NM_000547.5 , NM_175722.2 , NM_175722.3 , NM_175719.1 , NM_175719.2 , NM_175719.3 , NM_175721.1 , NM_175721.2 , NM_175721.3 , NM_001206745.1 , NM_001206744.1 , NM_175720.1 , BC095448 , BC095448.1 , BC063107 , NM_001206744.2
UniProt ID:	P07202
Summary:	This gene encodes a membrane-bound glycoprotein. The encoded protein acts as an enzyme and plays a central role in thyroid gland function. The protein functions in the iodination of tyrosine residues in thyroglobulin and phenoxy-ester formation between pairs of iodinated tyrosines to generate the thyroid hormones, thyroxine and triiodothyronine. Mutations in this gene are associated with several disorders of thyroid hormonogenesis, including congenital hypothyroidism, congenital goiter, and thyroid hormone organification defect IIA. Multiple transcript variants encoding distinct isoforms have been identified for this gene, but the full-length nature of some variants has not been determined. [provided by RefSeq, May 2011]
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 .



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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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).