

Product datasheet for **TR305031**

PREX2 Human shRNA Plasmid Kit (Locus ID 80243)

Product data:

Product Type:	shRNA Plasmids
Product Name:	PREX2 Human shRNA Plasmid Kit (Locus ID 80243)
Locus ID:	80243
Synonyms:	DEP.2; DEPDC2; P-REX2; PPP1R129
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PREX2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 80243). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_024870 , NM_025170 , NM_025170.1 , NM_025170.2 , NM_025170.3 , NM_025170.4 , NM_025170.5 , NM_024870.2 , NM_024870.3 , BC036055 , BC068571 , BC146369 , BC148795 , NM_025170.6 , NM_024870.4
UniProt ID:	Q70Z35
Summary:	The protein encoded by this gene belongs to the phosphatidylinositol 3,4,5-trisphosphate (PIP3)-dependent Rac exchanger (PREX) family, which are Dbl-type guanine-nucleotide exchange factors for Rac family small G proteins. Structural domains of this protein include the catalytic diffuse B-cell lymphoma homology and pleckstrin homology (DHPH) domain, two disheveled, EGL-10, and pleckstrin homology (DEP) domains, two PDZ domains, and a C-terminal inositol polyphosphate-4 phosphatase (IP4P) domain that is found in one of the isoforms. This protein facilitates the exchange of GDP for GTP on Rac1, allowing the GTP-bound Rac1 to activate downstream effectors. Studies also show that the pleckstrin homology domain of this protein interacts with the phosphatase and tensin homolog (PTEN) gene product to inhibit PTEN phosphatase activity, thus activating the phosphoinositide-3 kinase (PI3K) signaling pathway. Conversely, the PTEN gene product has also been shown to inhibit the GEF activity of this protein. This gene plays a role in insulin-signaling pathways, and either mutations or overexpression of this gene have been observed in some cancers. [provided by RefSeq, Apr 2016]



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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 . If you need a special design or shRNA sequence, please utilize our custom shRNA service .
Performance Guaranteed:	<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 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).</p>