

## Product datasheet for **TF320352**

### **PYK2 (PTK2B) Human shRNA Plasmid Kit (Locus ID 2185)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	PYK2 (PTK2B) Human shRNA Plasmid Kit (Locus ID 2185)
<b>Locus ID:</b>	2185
<b>Synonyms:</b>	CADTK; CAKB; FADK2; FAK2; PKB; PTK; PYK2; RAFTK
<b>Vector:</b>	pRFP-C-RS (TR30014)
<b>E. coli Selection:</b>	Chloramphenicol (34 ug/ml)
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	PTK2B - Human, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 2185). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.
<b>RefSeq:</b>	<a href="#">NM_004103</a> , <a href="#">NM_173174</a> , <a href="#">NM_173175</a> , <a href="#">NM_173176</a> , <a href="#">NM_004103.1</a> , <a href="#">NM_004103.2</a> , <a href="#">NM_004103.3</a> , <a href="#">NM_004103.4</a> , <a href="#">NM_173174.1</a> , <a href="#">NM_173174.2</a> , <a href="#">NM_173175.1</a> , <a href="#">NM_173175.2</a> , <a href="#">NM_173176.1</a> , <a href="#">NM_173176.2</a> , <a href="#">BC042599</a> , <a href="#">BC042599.2</a> , <a href="#">BC036651</a> , <a href="#">BC036651.2</a> , <a href="#">BM712234</a> , <a href="#">NM_173176.3</a> , <a href="#">NM_173174.3</a>
<b>UniProt ID:</b>	<a href="#">Q14289</a>
<b>Summary:</b>	This gene encodes a cytoplasmic protein tyrosine kinase which is involved in calcium-induced regulation of ion channels and activation of the map kinase signaling pathway. The encoded protein may represent an important signaling intermediate between neuropeptide-activated receptors or neurotransmitters that increase calcium flux and the downstream signals that regulate neuronal activity. The encoded protein undergoes rapid tyrosine phosphorylation and activation in response to increases in the intracellular calcium concentration, nicotinic acetylcholine receptor activation, membrane depolarization, or protein kinase C activation. This protein has been shown to bind CRK-associated substrate, nephrocystin, GTPase regulator associated with FAK, and the SH2 domain of GRB2. The encoded protein is a member of the FAK subfamily of protein tyrosine kinases but lacks significant sequence similarity to kinases from other subfamilies. Four transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]



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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).