

## Product datasheet for **TR505589**

### Phactr4 Mouse shRNA Plasmid (Locus ID 100169)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Phactr4 Mouse shRNA Plasmid (Locus ID 100169)
Locus ID:	100169
Synonyms:	3110001B12Rik; AI527228; AW495572; C330013F19Rik; mKIAA4120; N28169
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Phactr4 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 100169). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC075672</a> , <a href="#">BC096033</a> , <a href="#">NM_001161797</a> , <a href="#">NM_175306</a> , <a href="#">NM_175306.1</a> , <a href="#">NM_175306.2</a> , <a href="#">NM_175306.3</a> , <a href="#">NM_175306.4</a> , <a href="#">NM_001161797.1</a> , <a href="#">BC037059</a>
UniProt ID:	<a href="#">Q501J7</a>
Summary:	Regulator of protein phosphatase 1 (PP1) required for neural tube and optic fissure closure, and enteric neural crest cell (ENCCs) migration during development. Acts as an activator of PP1 by interacting with PPP1CA and preventing phosphorylation of PPP1CA at 'Thr-320'. During neural tube closure, localizes to the ventral neural tube and activates PP1, leading to down-regulate cell proliferation within cranial neural tissue and the neural retina. Also acts as a regulator of migration of enteric neural crest cells (ENCCs) by activating PP1, leading to dephosphorylation and subsequent activation of cofilin (COF1 or COF2) and repression of the integrin signaling through the RHO/ROCK pathway.[UniProtKB/Swiss-Prot Function]
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).