

## Product datasheet for **TR713493**

### Egln1 Rat shRNA Plasmid (Locus ID 308913)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Egln1 Rat shRNA Plasmid (Locus ID 308913)
Locus ID:	308913
Synonyms:	HIF-PH2; HPH-2; PHD-2
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Egln1 - Rat, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 308913). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_178334</a> , <a href="#">BC081694</a>

**Summary:** This gene encodes a component of a transcriptional complex that plays a central role in mammalian oxygen homeostasis. Hypoxia reduces the activity of prolyl hydroxylases that hydroxylate specific proline residues of the hypoxia-inducible factor-1a (Hif1a). In the absence of hydroxylation, the Hif1a transcription factor accumulates and activates transcription of hypoxia-responsive target genes. This gene encodes one of the three known Hif-interacting 2-oxoglutarate/iron-dependent prolyl-hydroxylases (HIF-PHDs) in rat. Targeted disruption of this gene in mice produced embryonic lethality between embryonic day 12.5 and day 14.5. Based on the transcript data currently available for rat, this Reference Sequence is believed to contain the complete coding region for this gene. However, when compared to its mouse and human orthologs, it has a shorter 5' coding region and an incomplete N-terminus zf-MYND domain. This locus currently has limited transcript data and aligns to an unfinished region of the rat reference genome assembly. It is therefore uncertain whether its coding region can be extended at the 5' end to encode a complete zf-MYND domain, whether no further changes need to be made to its coding region, or whether it is a transcribed pseudogene that does not encode a functional protein. As more transcript and experimental data become available, the coding status of this locus may change. [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).