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Product datasheet for TL514485

Egln2 Mouse shRNA Plasmid (Locus ID 112406)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Egln2 Mouse shRNA Plasmid (Locus ID 112406)
Locus ID:	112406
Synonyms:	0610011A13Rik; C85656; Hif-p4h-1; Ier4; Phd1; SM-20
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Egln2 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 112406). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC023299, BC051436, BC086764, NM_053208, NM_001357767, NM_053208.1, NM_053208.2, NM_053208.3, NM_053208.4
UniProt ID:	Q91YE2
Summary:	Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins. Hydroxylates a specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal, NODD, and C-terminal, CODD) of HIF1A. Also hydroxylates HIF2A. Has a preference for the CODD site for both HIF1A and HIF2A. Hydroxylated HIFs are then targeted for proteasomal degradation via the von Hippel-Lindau ubiquitination complex. Under hypoxic conditions, the hydroxylation reaction is attenuated allowing HIFs to escape degradation resulting in their translocation to the nucleus, heterodimerization with HIF1B, and increased expression of hypoxy-inducible genes. EGLN2 is involved in regulating hypoxia tolerance and apoptosis in cardiac and skeletal muscle. Also regulates susceptibility to normoxic oxidative neuronal death. Links oxygen sensing to cell cycle and primary cilia formation by hydroxylating the critical centrosome component CEP192 which promotes its ubiquitination and subsequent proteasomal degradation. Hydroxylates IKBKB, mediating NF-kappaB activation in hypoxic conditions. Target proteins are preferentially recognized via a LXXLAP motif.[UniProtKB/Swiss-Prot Function]

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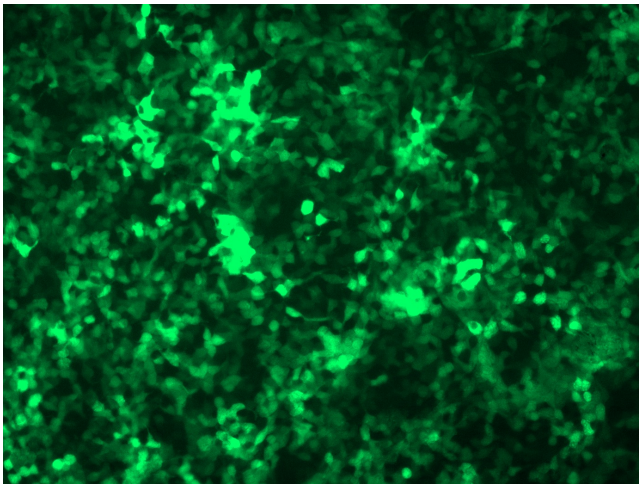
shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

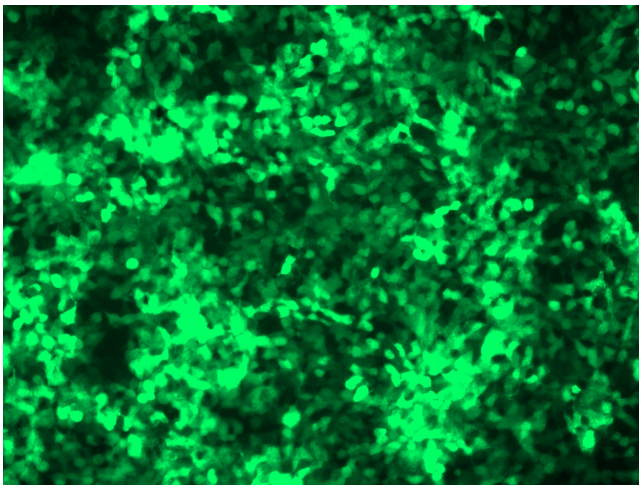
Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency 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).

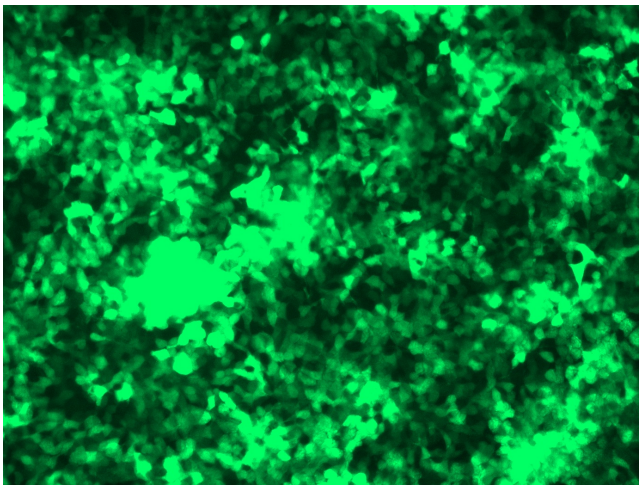
Product images:



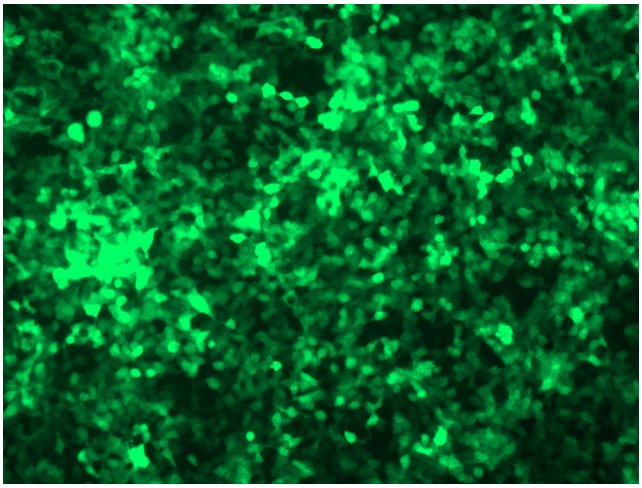
GFP signal was observed under microscope at 48 hours after transduction of TL514485A virus into HEK293 cells. TL514485A virus was prepared using lenti-shRNA TL514485A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL514485B virus into HEK293 cells. TL514485B virus was prepared using lenti-shRNA TL514485B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514485C] virus into HEK293 cells. [TL514485C] virus was prepared using lenti-shRNA [TL514485C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514485D] virus into HEK293 cells. [TL514485D] virus was prepared using lenti-shRNA [TL514485D] and [TR30037] packaging kit.