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Product datasheet for TL514887V

Foxo1 Mouse shRNA Lentiviral Particle (Locus ID 56458)

Product data:

Product Type:	shRNA Lentiviral Particles
Product Name:	Foxo1 Mouse shRNA Lentiviral Particle (Locus ID 56458)
Locus ID:	56458
Synonyms:	Afxh; AI876417; FKHR; Fkhr1; Foxo1a
Vector:	pGFP-C-shLenti (TR30023)
Format:	Lentiviral particles
Components:	Foxo1 - Mouse shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10^7 TU/ml.
RefSeq:	NM_019739, NM_019739.1, NM_019739.2, NM_019739.3, BC152908
UniProt ID:	Q9R1E0
Summary:	Transcription factor that is the main target of insulin signaling and regulates metabolic homeostasis in response to oxidative stress. Binds to the insulin response element (IRE) with consensus sequence 5'-TT[G/A]TTTTG-3' and the related Daf-16 family binding element (DBE) with consensus sequence 5'-TT[G/A]TTTAC-3'. Activity suppressed by insulin. Main regulator of redox balance and osteoblast numbers and controls bone mass. Orchestrates the endocrine function of the skeleton in regulating glucose metabolism. Acts synergistically with ATF4 to suppress osteocalcin/BGLAP activity, increasing glucose levels and triggering glucose intolerance and insulin insensitivity. Also suppresses the transcriptional activity of RUNX2, an upstream activator of osteocalcin/BGLAP. In hepatocytes, promotes gluconeogenesis by acting together with PPARGC1A and CEBPA to activate the expression of genes such as IGFBP1, G6PC and PCK1. Important regulator of cell death acting downstream of CDK1, PKB/AKT1 and STK4/MST1. Promotes neural cell death. Mediates insulin action on adipose tissue. Regulates the expression of adipogenic genes such as PPARG during preadipocyte differentiation and, adipocyte size and adipose tissue-specific gene expression in response to excessive calorie intake. Regulates the transcriptional activity of GADD45A and repair of nitric oxide-damaged DNA in beta-cells. Required for the autophagic cell death induction in response to starvation or oxidative stress in a transcription-independent manner. Mediates the function of MLIP in cardiomyocytes hypertrophy and cardiac remodeling (By similarity). [UniProtKB/Swiss-Prot Function]

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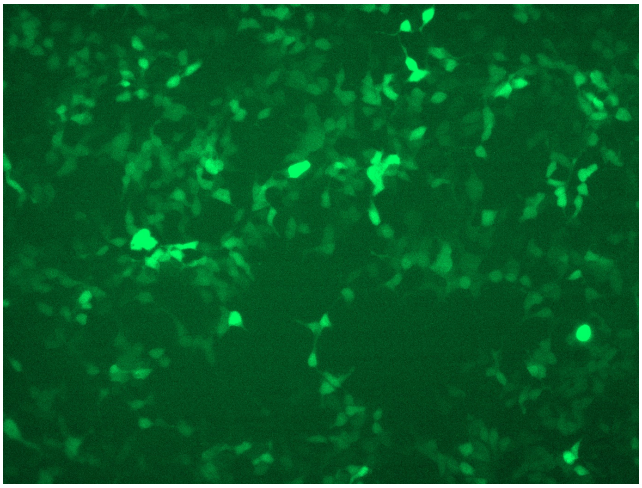
shRNA Design: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

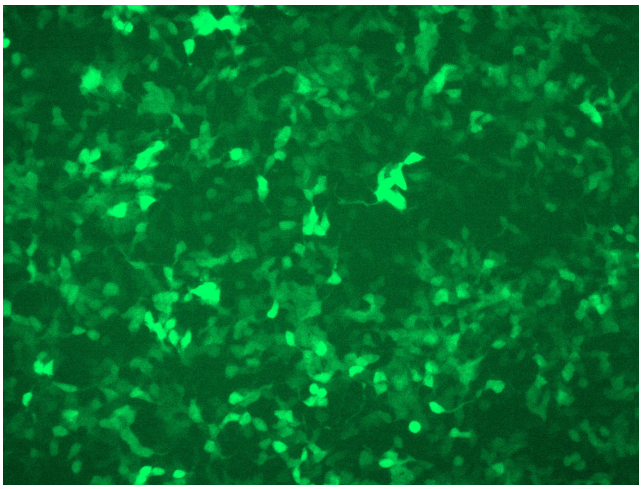
Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency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

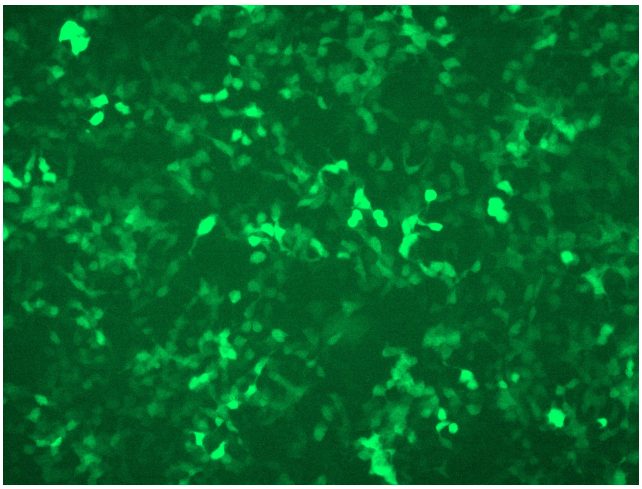
Product images:



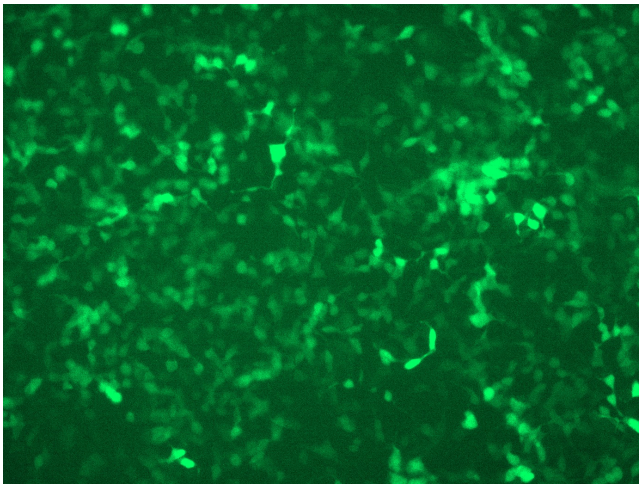
GFP signal was observed under microscope at 48 hours after transduction of TL514887A virus into HEK293 cells. TL514887A virus was prepared using lenti-shRNA TL514887A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL514887B virus into HEK293 cells. TL514887B virus was prepared using lenti-shRNA TL514887B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514887C] virus into HEK293 cells. [TL514887C] virus was prepared using lenti-shRNA [TL514887C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514887D] virus into HEK293 cells. [TL514887D] virus was prepared using lenti-shRNA [TL514887D] and [TR30037] packaging kit.