

## **Product datasheet for TR504705**

## **Fbxl2 Mouse shRNA Plasmid (Locus ID 72179)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Fbxl2 Mouse shRNA Plasmid (Locus ID 72179)

**Locus ID:** 72179

**Synonyms:** 2810423A21Rik; Fbl3

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: Fbxl2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

72179). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: BC096582, NM 178624, NM 178624.1, NM 178624.2, NM 178624.3, NM 178624.4,

NM 178624.5, NM 178624.6, BC051530, BC145665, BC145998

UniProt ID: Q8BH16

Summary: Calcium-activated substrate recognition component of the SCF (SKP1-cullin-F-box protein) E3

ubiquitin-protein ligase complex, SCF(FBXL2), which mediates the ubiquitination and

subsequent proteasomal degradation of target proteins. Unlike many F-box proteins, FBXL2 does not seem to target phosphodegron within its substrates but rather calmodulin-binding motifs and is thereby antagonized by calmodulin. This is the case for the cyclins CCND2 and CCND3 which polyubiquitination and subsequent degradation are inhibited by calmodulin. Through CCND2 and CCND3 degradation induces cell-cycle arrest in G(0). SCF(FBXL2) also

mediates PIK3R2 ubiquitination and proteasomal degradation thereby regulating phosphatidylinositol 3-kinase signaling and autophagy (By similarity). PCYT1A

monoubiquitination by SCF(FBXL2) and subsequent degradation regulates synthesis of phosphatidylcholine, which is utilized for formation of membranes and of pulmonary

surfactant (PubMed:21343341).[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 <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.



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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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).