

## Product datasheet for **TL510832**

### Eif4ebp2 Mouse shRNA Plasmid (Locus ID 13688)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Eif4ebp2 Mouse shRNA Plasmid (Locus ID 13688)
Locus ID:	13688
Synonyms:	4E-BP2; 2810011119Rik; AA792569; BC010348; PHAS-II
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Eif4ebp2 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 13688). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">BC015082</a> , <a href="#">BC119539</a> , <a href="#">NM_010124</a> , <a href="#">NM_010124.1</a> , <a href="#">NM_010124.2</a> , <a href="#">BC010348</a>
UniProt ID:	<a href="#">P70445</a>
Summary:	Repressor of translation initiation involved in synaptic plasticity, learning and memory formation (PubMed:16237163, PubMed:17029989). Regulates EIF4E activity by preventing its assembly into the eIF4F complex: hypophosphorylated form of EIF4EBP2 competes with EIF4G1/EIF4G3 and strongly binds to EIF4E, leading to repress translation. In contrast, hyperphosphorylated form dissociates from EIF4E, allowing interaction between EIF4G1/EIF4G3 and EIF4E, leading to initiation of translation (PubMed:17029989, PubMed:20347422, PubMed:23172145). EIF4EBP2 is enriched in brain and acts as a regulator of synapse activity and neuronal stem cell renewal via its ability to repress translation initiation (PubMed:20347422, PubMed:24139800, PubMed:23172145). Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways (PubMed:8939971).[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).