

Product datasheet for **TR515608**

Cul7 Mouse shRNA Plasmid (Locus ID 66515)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Cul7 Mouse shRNA Plasmid (Locus ID 66515)
Locus ID:	66515
Synonyms:	2510004L20Rik; AA409809; C230011P08Rik; p185; p193
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Cul7 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 66515). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_025611 , NM_025611.1 , NM_025611.2 , NM_025611.4 , NM_025611.5 , BC138998 , BC019645 , BC024345 , BC026946 , BC059865 , BC065096 , BC100544 , BC139000
UniProt ID:	Q8VE73



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Summary:	<p>Core component of the 3M and Cul7-RING(FBXW8) complexes, which mediates the ubiquitination of target proteins. Core component of the 3M complex, a complex required to regulate microtubule dynamics and genome integrity. It is unclear how the 3M complex regulates microtubules, it could act by controlling the level of a microtubule stabilizer. Interaction with CUL9 is required to inhibit CUL9 activity and ubiquitination of BIRC5. Core component of a Cul7-RING ubiquitin-protein ligase with FBXW8, which mediates ubiquitination and consequent degradation of target proteins such as GORASP1, IRS1 and MAP4K1/HPK1. Ubiquitination of GORASP1 regulates Golgi morphogenesis and dendrite patterning in brain. Mediates ubiquitination and degradation of IRS1 in a mTOR-dependent manner: the Cul7-RING(FBXW8) complex recognizes and binds IRS1 previously phosphorylated by S6 kinase (RPS6KB1 or RPS6KB2). The Cul7-RING(FBXW8) complex also mediates ubiquitination of MAP4K1/HPK1: recognizes and binds autophosphorylated MAP4K1/HPK1, leading to its degradation, thereby affecting cell proliferation and differentiation. Acts as a regulator in trophoblast cell epithelial-mesenchymal transition and placental development. Does not promote polyubiquitination and proteasomal degradation of p53/TP53. While the Cul7-RING(FBXW8) and the 3M complexes are associated and involved in common processes, CUL7 and the Cul7-RING(FBXW8) complex may have additional functions (By similarity). Probably plays a role in the degradation of proteins involved in endothelial proliferation and/or differentiation.[UniProtKB/Swiss-Prot Function]</p>
shRNA Design:	<p>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.</p>
Performance Guaranteed:	<p>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.</p> <p>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).</p>