

# Product datasheet for KN317258LP

## Tbc1d7 Mouse Gene Knockout Kit (CRISPR)

### **Product data:**

#### OriGene Technologies, Inc.

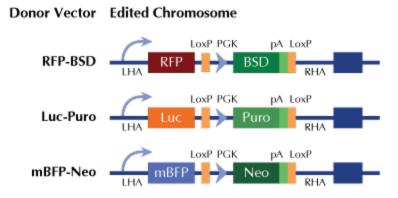
9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	Tbc1d7
Locus ID:	67046
Components:	<ul> <li>KN317258G1, Tbc1d7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN317258G2, Tbc1d7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</li> <li>KN317258LPD, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.</li> <li>GE100003, scramble sequence in pCas-Guide vector</li> </ul>
RefSeq:	<u>NM 001252639, NM 001252640, NM 025935</u>
UniProt ID:	<u>Q9D0K0</u>
Synonyms:	2610009C09Rik
Summary:	Component of the TSC-TBC complex, that contains TBC1D7 in addition to the TSC1-TSC2 complex and consists of the functional complex possessing GTPase-activating protein (GAP) activity toward RHEB in response to alterations in specific cellular growth conditions. The small GTPase RHEB is a direct activator of the protein kinase activity of mTORC1 and the TSC-TBC complex acts as a negative regulator of mTORC1 signaling cascade by acting as a GAP for RHEB. Participates in the proper sensing of growth factors and glucose, but not amino acids, by mTORC1. It is unclear whether TBC1D7 acts as a GTPase-activating protein and additional studies are required to answer this question.[UniProtKB/Swiss-Prot Function]



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#### **Product images:**



RFP, Luc, and mBFP will be under native gene promoter

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