

## Product datasheet for **KN317258LP**

### Tbc1d7 Mouse Gene Knockout Kit (CRISPR)

#### Product data:

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:	<p><b>KN317258G1</b>, Tbc1d7 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</p> <p><b>KN317258G2</b>, Tbc1d7 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</p> <p><b>KN317258LPD</b>, donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette.</p> <p><b>GE100003</b>, scramble sequence in pCas-Guide vector</p>
RefSeq:	<a href="#">NM_001252639</a> , <a href="#">NM_001252640</a> , <a href="#">NM_025935</a>
UniProt ID:	<a href="#">Q9D0K0</a>
Synonyms:	2610009C09Rik
Summary:	<p>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]</p>



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## Product images:

