

Product datasheet for **KN310033**

Mfn1 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	Mfn1
Locus ID:	67414
Components:	<p>KN310033G1, Mfn1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CTGGCCGAAGATTGCAGTGA</p> <p>KN310033G2, Mfn1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TGCAATCTTCGGCCAGTTAC</p> <p>KN310033D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p>

Homologous arm and GFP-puro sequences:

pUC vector backbone in gray; **Left arm sequence in blue**; **GFP-puro in green**; **Right arm in violet**

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GE100003, scramble sequence in pCas-Guide vector

Disclaimer:

These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq:

[NM_024200](#)

UniProt ID:

[Q811U4](#)

Synonyms:

2310002F04Rik; 6330416C07Rik; D3ErtD265e; HR2; mKIAA4032

Summary:

Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion (PubMed:12527753, PubMed:23921378, PubMed:24513856, PubMed:15297672). Membrane clustering requires GTPase activity (By similarity). It may involve a major rearrangement of the coiled coil domains (PubMed:15297672). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events (PubMed:12527753). Overexpression induces the formation of mitochondrial networks (in vitro). Has low GTPase activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:

