

Product datasheet for KN203070RB

OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200 Rockville. MD 20850. US

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

MRPS18A Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 RFP-BSD donor, 1 scramble control

Donor DNA: RFP-BSD Symbol: MRPS18A

Locus ID: 55168

Components: KN203070G1, MRPS18A gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN203070G2, MRPS18A gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN203070RBD**, donor DNA containing left and right homologous arms and RFP-BSD

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

RefSeq: <u>NM 001193343</u>, <u>NM 018135</u>

UniProt ID: Q9NVS2

Synonyms: HumanS18b; MRP-S18-3; MRPS18-3; S18bmt

Summary: Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in

protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that

the latter contain a 5S rRNA. Among different species, the proteins comprising the

mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a 28S subunit protein that belongs to the ribosomal protein S18P family. The encoded protein is one of three that has significant sequence similarity to bacterial S18 proteins. The primary sequences of the three human mitochondrial S18 proteins are no more closely related to each other than they are to the prokaryotic S18 proteins. A pseudogene corresponding to this gene is found on chromosome 3p. Alternative splicing results in multiple transcript variants.[provided by

RefSeq, Jul 2010]





Product images:

Donor Vector Edited Chromosome



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