

Product datasheet for KN301038BN

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Aifm1 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

Donor DNA: mBFP-Neo

Symbol: Aifm1 Locus ID: 26926

Components: KN301038G1, Aifm1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

KN301038G2, Aifm1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN301038BND, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

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: <u>NM 001290364</u>, <u>NM 012019</u>

UniProt ID: Q9Z0X1

Synonyms: AIF; AIFsh2; Hq; Pdcd8

Summary: Functions both as NADH oxidoreductase and as regulator of apoptosis. In response to

apoptotic stimuli, it is released from the mitochondrion intermembrane space into the cytosol and to the nucleus, where it functions as a proapoptotic factor in a caspase-independent pathway. In contrast, functions as an antiapoptotic factor in normal mitochondria via its NADH oxidoreductase activity. The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA. Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates casapse-7 to amplify apoptosis. Plays a critical role in caspase-independent, pyknotic cell death in

hydrogen peroxide-exposed cells. Binds to DNA in a sequence-independent manner (By

similarity).[UniProtKB/Swiss-Prot Function]





Product images:

Donor Vector Edited Chromosome



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