

Product datasheet for **KN303046RB**

Cdk5rap2 Mouse 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: Cdk5rap2
Locus ID: 214444
Components: **KN303046G1**, Cdk5rap2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GACTCGGGGATGGAAGAGGA
KN303046G2, Cdk5rap2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GCCCTGCCTGGGACCCTCAG
KN303046RBD, donor DNA containing left and right homologous arms and RFP-BSD functional cassette.
 Homologous arm and RFP-BSD sequences:
 pUC vector backbone in gray; **Left arm sequence in blue**; **RFP-BSD in green**; **Right arm in violet**

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AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG CAGCACTGCA TAATTCTCTT ACTGTCATGC
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 AAGGCGGTAA TACGGTTATC CACAGAATCA GGGGATAACG CAGGAAAGAA CATGTGAGCA AAAGGCCAGC
 AAAAGGCCAG GAACCGTAAA AAGGCCGCGT TGCTGGCGTT TTTCCATAGG CTCCGCCCC CTGACGAGCA
 TCACAAAAAT CGACGCTCAA GTCAGAGGTG GCGAAACCCG ACAGGACTAT AAAGATACCA GGCGTTTCCC
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 CATCGTGGT TCACGCTCGT CGTTTGGTAT GGCTTCATTC AGCTCCGTT CCAACGATC

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_001313762](#), [NM_145990](#)

UniProt ID:

[Q8K389](#)

Synonyms: 2900018K03Rik; an; mKIAA1633

Summary: Potential regulator of CDK5 activity via its interaction with CDK5R1. Negative regulator of centriole disengagement (licensing) which maintains centriole engagement and cohesion (PubMed:20627074). Involved in regulation of mitotic spindle orientation (PubMed:20460369). Plays a role in the spindle checkpoint activation by acting as a transcriptional regulator of both BUBR1 and MAD2 promoter. Required for the recruitment of AKAP9 to centrosomes (By similarity). Plays a role in neurogenesis (PubMed:20471352). Contrary to higher mammalian orthologs, including human, chimpanzee, bovine and dog, does not interact with EB1/MAPRE1, therefore its function in the regulation of microtubule dynamics is unclear (PubMed:19553473).[UniProtKB/Swiss-Prot Function]

Product images:

