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Product datasheet for KN203468

CAMKK2 Human 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: CAMKK2

Locus ID: 10645

Components: **KN203468G1**, CAMKK2 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CAGCAACCGGGCCGCCCCCC
KN203468G2, CAMKK2 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: TAGCCAGCCCAGCAGCAACC
KN203468D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.
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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TCAGCTCCGG TTCCCAACGA TC

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.

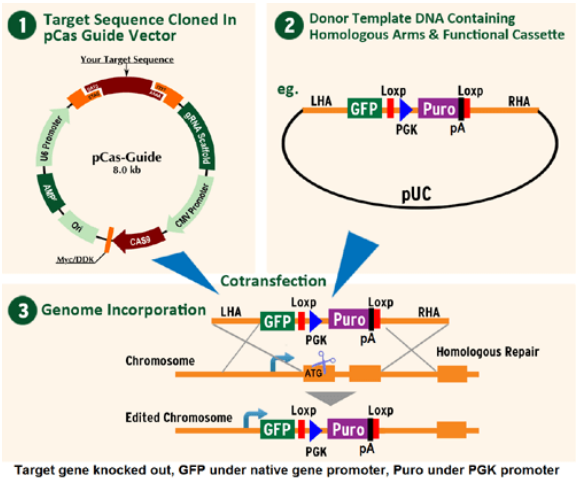
RefSeq: NM_001270485, NM_001270486, NM_006549, NM_153499, NM_153500, NM_172214, NM_172215, NM_172216, NM_172226

UniProt ID: Q96RR4

Synonyms: CAMKK; CAMKKB

Summary: The product of this gene belongs to the Serine/Threonine protein kinase family, and to the Ca(2+)/calmodulin-dependent protein kinase subfamily. The major isoform of this gene plays a role in the calcium/calmodulin-dependent (CaM) kinase cascade by phosphorylating the downstream kinases CaMK1 and CaMK4. Protein products of this gene also phosphorylate AMP-activated protein kinase (AMPK). This gene has its strongest expression in the brain and influences signalling cascades involved with learning and memory, neuronal differentiation and migration, neurite outgrowth, and synapse formation. Alternative splicing results in multiple transcript variants encoding distinct isoforms. The identified isoforms differ in their ability to undergo autophosphorylation and to phosphorylate downstream kinases. [provided by RefSeq, Jul 2012]

Product images:



Target gene knocked out, GFP under native gene promoter, Puro under PGK promoter