

## Product datasheet for **KN205202LP**

### **CAMK2A Human Gene Knockout Kit (CRISPR)**

#### **Product data:**

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 Luciferase-Puro donor, 1 scramble control
Donor DNA:	Luciferase-Puro
Symbol:	CAMK2A
Locus ID:	815
Components:	<b>KN205202G1</b> , CAMK2A gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) <b>KN205202G2</b> , CAMK2A gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) <b>KN205202LPD</b> , donor DNA containing left and right homologous arms and Luciferase-Puro functional cassette. <b>GE100003</b> , 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\\_015981](#), [NM\\_171825](#), [NM\\_001363989](#), [NM\\_001363990](#), [NM\\_001369025](#)

**UniProt ID:** [Q9UQM7](#)

**Synonyms:** CAMKA

**Summary:** The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Several transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Jun 2018]



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## Product images:

