

## Product datasheet for RC205202L2

### CAMK2A (NM\_171825) Human Tagged Lenti ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | CAMK2A (NM_171825) Human Tagged Lenti ORF Clone                |
| Tag:                      | mGFP   |
| Symbol:                   | CAMK2A   |
| Synonyms:                 | CAMKA; CaMKIIalpha; CaMKIINalpha; MRD53; MRT63                 |
| Mammalian Cell Selection: | None   |
| Vector:                   | pLenti-C-mGFP (PS100071)                                       |
| E. coli Selection:        | Chloramphenicol (34 ug/mL)                                     |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC205202). |
| Restriction Sites:        | SgfI-MluI  |
| Cloning Scheme:           |  |

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF.

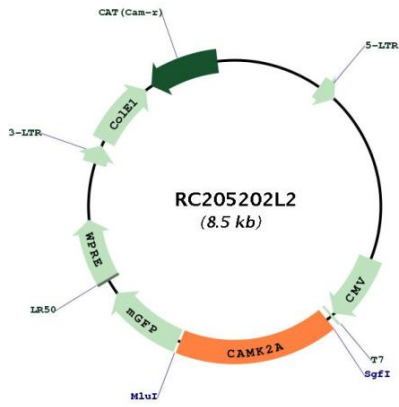
|           |           |
|-----------|-----------|
| ACCN:     | NM_171825 |
| ORF Size: | 1434 bp   |



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|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_171825.1</a>   |
| <b>RefSeq Size:</b>           | 4885 bp   |
| <b>RefSeq ORF:</b>            | 1437 bp   |
| <b>Locus ID:</b>              | 815   |
| <b>UniProt ID:</b>            | <a href="#">Q9UQM7</a>  |
| <b>Cytogenetics:</b>          | 5q32  |
| <b>Protein Families:</b>      | Druggable Genome, Protein Kinase  |
| <b>Protein Pathways:</b>      | Calcium signaling pathway, ErbB signaling pathway, Glioma, GnRH signaling pathway, Long-term potentiation, Melanogenesis, Neurotrophin signaling pathway, Olfactory transduction, Oocyte meiosis, Wnt signaling pathway   |
| <b>MW:</b>                    | 54.1 kDa  |
| <b>Gene Summary:</b>          | 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] |

Product images:



Circular map for RC205202L2