

Product datasheet for MR227294L3V

OriGene Technologies, Inc.

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Mark2 (NM_007928) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type: Lentiviral Particles

Product Name: Mark2 (NM_007928) Mouse Tagged ORF Clone Lentiviral Particle

Symbol: Mark2

Synonyms: Emk; EMK-1; Par-1; Par-1b

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

 Tag:
 Myc-DDK

 ACCN:
 NM_007928

ORF Size: 2328 bp

ORF Nucleotide

Sequence:

The ORF insert of this clone is exactly the same as(MR227294).

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements.

Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA.

Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence

verification at a reduced cost. Please contact our customer care team at

<u>custsupport@origene.com</u> or by calling 301.340.3188 option 3 for pricing and delivery.

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. More info

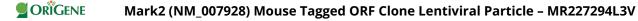
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

RefSeq: <u>NM 007928.2</u>

RefSeq Size: 4648 bp RefSeq ORF: 2331 bp





Locus ID: 13728

UniProt ID: Q05512

Cytogenetics: 19 5.32 cM

Gene Summary: Serine/threonine-protein kinase. Involved in cell polarity and microtubule dynamics

regulation. Phosphorylates CRTC2/TORC2, DCX, HDAC7, KIF13B, MAP2, MAP4 and RAB11FIP2. Phosphorylates the microtubule-associated protein MAPT/TAU. Plays a key role in cell polarity by phosphorylating the microtubule-associated proteins MAP2, MAP4 and MAPT/TAU at KXGS motifs, causing detachment from microtubules, and their disassembly. Regulates epithelial cell polarity by phosphorylating RAB11FIP2. Involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Regulates axogenesis by phosphorylating KIF13B, promoting interaction between KIF13B and 14-3-3 and inhibiting microtubule-dependent accumulation of KIF13B. Also required for neurite outgrowth and establishment of neuronal polarity. Regulates localization and activity of some histone deacetylases by mediating phosphorylation of HDAC7, promoting subsequent interaction between HDAC7 and 14-3-3 and export from the nucleus. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3). Modulates the developmental decision to build a columnar versus a hepatic epithelial cell apparently by promoting a switch from a direct to a transcytotic mode of apical protein delivery. Essential for the asymmetric development of membrane domains of polarized epithelial cells.[UniProtKB/Swiss-Prot Function]