

Product datasheet for **RG239587**

MARK1 (NM_001286124) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK1 (NM_001286124) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MARK1
Synonyms:	MARK; Par-1c; Par1c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG239587 representing NM_001286124.
 Blue=ORF Red=Cloning site Green=Tag(s)

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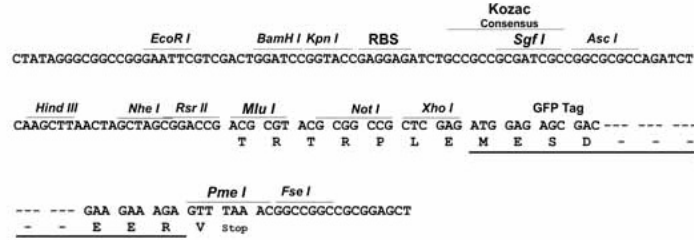
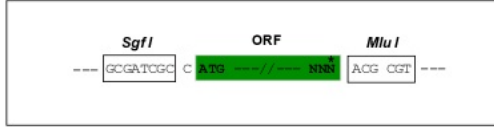
Protein Sequence: >Peptide sequence encoded by RG239587
Blue=ORF Red=Cloning site Green=Tag(s)

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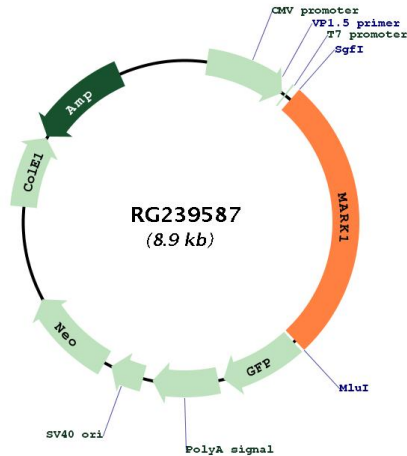
Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001286124

ORF Size: 2388 bp

OTI Disclaimer: 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.

Components: 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).

RefSeq: [NM_001286124.1](#), [NP_001273053.1](#)

RefSeq Size: 5339 bp

RefSeq ORF: 2391 bp

Locus ID: 4139

Cytogenetics: 1q41

Protein Families: Druggable Genome, Protein Kinase

MW: 89.5 kDa

Gene Summary:

Serine/threonine-protein kinase (PubMed:23666762). Involved in cell polarity and microtubule dynamics regulation. Phosphorylates DCX, MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). Involved in cell polarity by phosphorylating the microtubule-associated proteins MAP2, MAP4 and MAPT/TAU at KXGS motifs, causing detachment from microtubules, and their disassembly. Involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3).[UniProtKB/Swiss-Prot Function]