

Product datasheet for **RC205758**

MARK3 (NM_002376) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK3 (NM_002376) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MARK3
Synonyms:	CTAK1; KP78; Par-1a; PAR1A; VIPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC205758 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCACTAGGACCCCATTTGCCAACGGTGAATGAACGAGACACTGAAAACACACGTCACATGGAGATG
 GCGTCAAGAAGTTACCTCTCGTACCAGCCGCTCAGGAGCTCGGTGTAGAACTCTATAGCCTCCTGTGC
 AGATGAACAACCTCACATCGGAACTACAGACTGTTGAAAAAATCGGCAAGGGGAATTTTGCAAAAGTA
 AAATTGGCAAGACATATCCTTACAGGCAGAGAGTTGCAATAAAAATAATTGACAAAACCTCAGTTGAATC
 CAACAAGTCTACAAAAGCTCTTCAGAGAAGTAAGAATAATGAAGATTTTAAATCATCCCAATATAGTGAA
 GTTATTCGAAGTCATTGAAACTGAAAAACACTCTACCTAATCATGGAATATGCAAGTGGAGGTGAAGTA
 TTTGACTATTTGGTTGCACATGGCAGGATGAAGGAAAAAGAAGCAAGATCTAAATTTAGACAGATTGTGT
 CTGCAGTTCAATACTGCCATCAGAAACGGATCGTACATCGAGACCTCAAGGCTGAAAATCTATTGTTAGA
 TGCCGATATGAACATTAATAAGCAGATTTTCGGTTTTAGCAATGAATTTACTGTTGGCGGTAACCTCGAC
 ACGTTTTGTGGCAGTCTCCATACGCAGCACCTGAGCTCTCCAGGGCAAGAAATATGACGGGCCAGAAG
 TGGATGTGTGGAGTCTGGGGTCAATTTATACACACTAGTCAGTGGCTCACTTCCCTTTGATGGGCAAAA
 CCTAAAGGAACTGAGAGAGAGATTAAGAGGGAAATACAGAATTCCTTCTACATGTCTACAGACTGT
 GAAAACCTTCTCAAACGTTTCTGGTGCTAAATCCAATTAACCGCGGCACTCTAGAGCAAATCATGAAGG
 ACAGGTGGATCAATGCAGGGCATGAAGAAGTGAACCTCAAACCTTTGTTGAACCAAGCTAGACATCTC
 AGACCAAAAAAGAATAGATATTAGGTGGGAATGGGATATTCACAAGAAGAAATCAAGAATCTCTTAGT
 AAGATGAAATACGATGAAATCACAGCTACATATTTGTTATTGGGGAGAAAATCTTCAGAGCTGGATGCTA
 GTGATTCAGTTCTAGCAGCAATCTTTCACTTGCTAAGGTTAGGCCGAGCAGTGATCTCAACAACGATGAC
 TGGCCAGTCTCCTCACCACAAAGTGCAGAGAAGTGTTCCTTCAAGCCAAAAGCAAGACGCTACAGTGAC
 CATGCTGGACCAGCTATTCCTTCTGTTGTGGCGTATCCGAAAAGGAGTCAGACCAGCACTGCAGATAGTG
 ACCTCAAAGAAGATGGAATTTCTCCCGGAAATCAAGTGGCAGTGTGTTGGAGGAAAGGGAATTGCTCC
 AGCCAGTCCCATGCTTGGGAATGCAAGTAATCCTAATAAGGCGGATATTCCTGAACGCAAGAAAAGCTCC
 ACTGTCCCTAGTAGTAACACAGCATCTGGTGGAAATGACACGACGAAATACTTATGTTGTCAGTGAGAGAA
 CTACAGCTGATAGACACTCAGTGATTGAGAATGGCAAAGAAAACAGCACTATTCTGATCAGAGAACTCC
 AGTTGCTTCAACACACAGTATCAGTAGTGCAGCCACCCAGATCGAATCCGCTTCCCAAGAGGCACTGCC
 AGTCGTAGCACTTCCACGGCCAGCCCCGGGAACGGCGAACCAGCAACATAAATGGCCCTCTGCCTCTC
 CAGCCTGTCCCATGAAGCCACACCATTGTCCCAGACTCGAAGCCGAGGCTCCACTAATCTTTAGTAA
 ATTAACCTCAAAAACCTACAAGGAGTCGCAATGTATCTGCTGAGCAAAAAGATGAAAAAAGAAAGCAAAG
 CCTCGATCCCTACGCTTACCTGGAGCATGAAAACCACTAGTTCAATGGATCCCGGGGACATGATGCGGG
 AAATCCGCAAAGTGTGGACGCAATAACTGCGACTATGAGCAGAGGGAGCGCTTCTTGCTCTTCTGCGT
 CCACGGAGATGGGCACGCGGAGAACCCTCGTGCAGTGGGAAATGGAAGTGTGCAAGCTGCCAAGACTGTCT
 CTGAACGGGTCCGGTTAAGCGGATATCGGGGACATCCATAGCCTTCAAAAATATTGCTTCAAAAATTG
 CCAATGAGCTAAAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205758 protein sequence
Red=Cloning site Green=Tags(s)

MSTRTPPLPTVNERDTENHTSHGDGRQEVTSRTSRSGARCRNSIASCADQPHIGNYRLLKTIQKGNFAKV
 KLARHILTGREVAIKIIDKTQLNPTSLQKLFREVRIMKILNHPNIVKLFVETETKLYLIMEYASGGEV
 FDYLVAHGRMKEKEARSKFRQIVSAVQYCHQKRIVHRDLKAENLLLDADMNIKIADFGFSNEFTVGGKLD
 TFCGSPPYAAPELFGGKKYDGPVWVSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDC
 ENLLKRFLVLPNIKRGTLQIMKDRWINAGHEEDELKPFVEPELSDQKRIDIMVGMGYSQEEIQESLS
 KMKYDEITATYLLLGRKSSELDASDSSSSNLAKVVRPSSDLNNSTGQSPHHKVRQSVSSSQKQRRYS
 HAGPAIPSVVAYPKRSQTSTADSDLKEDGISSRKSSGSAVGGKIAPASPMLGNASPNKADIPERKKSS
 TVPSSNTASGGMTRNTYVCSERTADRHSVIQNGKENSTIPDQRTPVASTHSISSAATPDRIRFPRGTA
 SRSTFHGQPRERTATYNGPPASPSLSHEATPLSQTRSRGSTNLF SKL TSKL TRSRNVSAEQKDENKEAK
 PRSLRFTWSMKTSSMDPGDMMREIRKVL DANNC DYE Q RER FLL F CVHGDGHAENLVQWEME VCKL PRLS
 LNGVRFKRISGTSIAFKNIASKIANELKL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6140_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002376

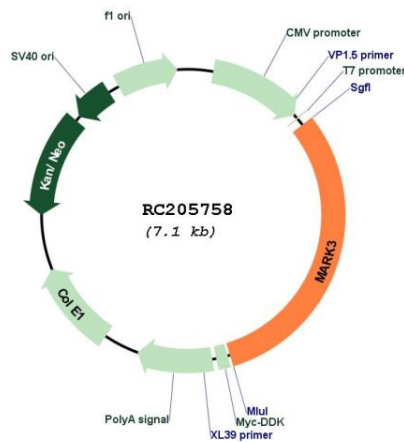
ORF Size: 2187 bp

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](#)

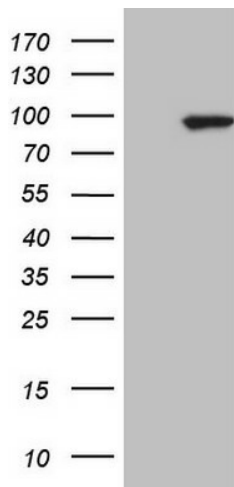
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

- 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).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 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.
- Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
- RefSeq:** [NM_002376.6](#)
- RefSeq Size:** 3474 bp
- RefSeq ORF:** 2190 bp
- Locus ID:** 4140
- UniProt ID:** [P27448](#)
- Cytogenetics:** 14q32.32-q32.33
- Domains:** UBA, pkinase, TyrKc, KA1, S_TKc
- Protein Families:** Druggable Genome, Protein Kinase
- MW:** 81.4 kDa
- Gene Summary:** The protein encoded by this gene is activated by phosphorylation and in turn is involved in the phosphorylation of tau proteins MAP2 and MAP4. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

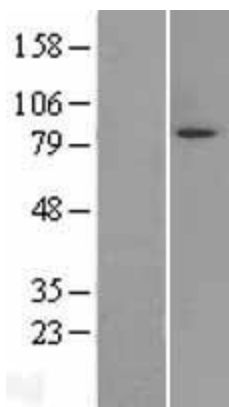
Product images:



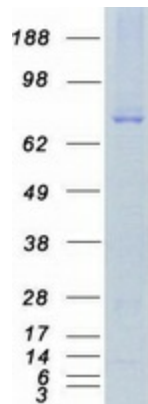
Circular map for RC205758



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MARK3 (Cat# RC205758, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MARK3(Cat# [TA805790]). Positive lysates [LY400851] (100ug) and [LC400851] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400851]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205758 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MARK3 protein (Cat# [TP305758]). The protein was produced from HEK293T cells transfected with MARK3 cDNA clone (Cat# RC205758) using MegaTran 2.0 (Cat# [TT210002]).