

Product datasheet for **RC222657**

PKMYT1 (NM_004203) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKMYT1 (NM_004203) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKMYT1
Synonyms:	MYT1; PPP1R126
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC222657 representing NM_004203
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTAGAACGGCCTCCTGCACTGGCCATGCCATGCCACGGAGGGCACCCGCCACCTCTGAGTGGCA
 CCCCCATCCCAGTCCCAGCCTACTTCCGCCACGAGAACCTGGATTCTCCCTCAAGAGGCCAGGGGGCT
 CAGCCGGAGCCTCCACCTCCGCCCCCTGCCAAGGGCAGCATTCCCATCAGCCGCCCTCTCCCTCTCGG
 ACCCCAGGCTGGCACCAGCTGCAGCCCCGGCGGTGTCATTCCGGGGCAGGCCTCAGAGACTCTGCAGA
 GCCCTGGGTATGACCCAAGCCGGCCAGAGTCTTCTTCCAGCAGAGCTTCCAGAGGCTCAGCCGCCCTGGG
 CCATGGCTCTACGGAGAGGTCTTCAAGGTGCGCTCCAAGGAGGACGGCCGGCTCTATGCGGTAAGCGT
 TCCATGTACCATTCGGGGCCCAAGGACCGGGCCGCAAGTTGGCCGAGGTGGCAGCCACGAGAAGG
 TGGGGCAGCACCCATGCTGCGTGGCTGGAGCAGGCTGGGAGGAGGGCGCATCTGTACCTGCAGAC
 GGAGCTGTGCGGGCCAGCTGCAGCAACTGTGAGGCTGGGGTGCCAGCCTGCCTGAGGCCAGGTC
 TGGGGCTACCTGCGGGACACGCTGCTTGCCCTGGCCATCTGCACAGCCAGGGCCTGGTGCACCTTGATG
 TCAAGCCTGCCAACATCTTCTGGGGCCCCGGGGCCGCTGCAAGCTGGGTGACTTCGGACTGCTGGTGGGA
 GCTGGGTACAGCAGGAGCTGGTGAAGTCCAGGAGGAGACCCCCGCTACATGGCCCCGAGCTGCTGCAG
 GGCTCCTATGGGACAGCAGCGGATGTGTTCACTTGGGCTCACCATCCTGGAAGTGGCATGCAACATGG
 AGCTGCCCCACGGTGGGAGGGCTGGCAGCAGCTGCGCCAGGGCTACCTGCCCTGAGTTCACTGCCGG
 TCTGTCTCCGAGCTGCGTTCTGTCTTGTGATGCTGGAGCCAGACCCCAAGCTGCGGGCCACGGCC
 GAGGCCCTGCTGGCACTGCCTGTGTTGAGGCAGCCCGGGCCTGGGGTGTGCTGTGGTGCATGGCAGCGG
 AGGCCCTGAGCCGAGGGTGGGCCCTGTGGCAGGCCCTGCTTGCCCTGCTCTGCTGGCTGCGCATGGCT
 GGCTCACCTGCCAGCTGGCTACAGCCCTGGGCCCGCCAGCCACCCCGCCTGGCTCACCACTGCACT
 TTGCTCCTGGACAGCAGCCTCTCCAGCAACTGGGATGACGACAGCCTAGGGCCTTCACTCTCCCCTGAGG
 CTGTCTGGCCCCGACTGTGGGAGCACCTCCACCCCGGAGCAGGTGCACACCCAGGGATGCCCTGGA
 CCTAAGTGACATCAACTCAGAGCCTCCTCGGGCTCCTTCCCCTCCTTTGAGCCTCGGAACCTCCTCAGC
 CTGTTTGAGGACACCTAGACCCAACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222657 representing NM_004203
 Red=Cloning site Green=Tags(s)

MLERPPALAMPMPTEGTPPPLSGTPIPVPAYFRHAEPGFSLKRPRGLSRSLPPPPPAKGSIPISRLFPPR
 TPGWHQLQPRRVSFRGEASETLQSPGYDPSRPEFFQSFQRLSRLGHGSYGEVFKVRSKEDGRLYAVKR
 SMSPFRRPKDRARKLAEVGSHEKVGQHPCCVRLEQAWEEGGILYLQTELCGPSLQHQCEAWGASLPEAQV
 WGYLRDTHLALHLHSQGLVHLDVKPANIFLGPGRCKLGDFFLLVELGTAGAGEVQEGDPRYMAPELLQ
 GSYGTAADVFLGLTILEVACNMELPHGGEGWQQLRQGYLPPEFTAGLSSELRSVLMMLPEPDKLRATA
 EALLALPVLQRPAWGLWMAAEALSRGAWLWQALLALLCWLWHGLAHPASWLQPLGPPATPPGSPPCS
 LLLDSSLSSNWDDSLGPSLSPEAVLARTVGSTSTPRSRCTPRDALDLDINSEPPRGSFSPFEPNLLS
 LFEDTLDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6167_f11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004203

ORF Size: 1497 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.

RefSeq: [NM_004203.5](#)

RefSeq Size: 2121 bp

RefSeq ORF: 1500 bp

Locus ID: 9088

UniProt ID: [Q99640](#)

Cytogenetics: 16p13.3

Domains: pkinase, TyrKc, S_TKc

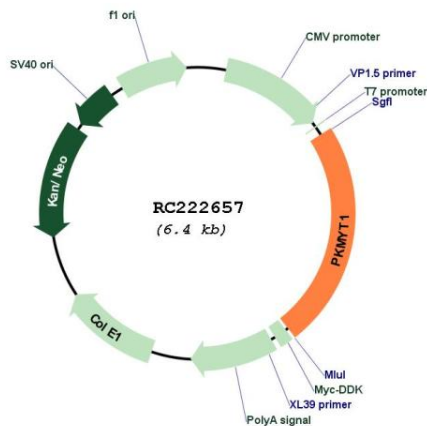
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation

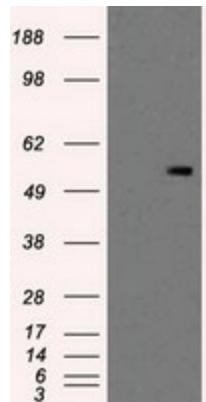
MW: 54.3 kDa

Gene Summary: This gene encodes a member of the serine/threonine protein kinase family. The encoded protein is a membrane-associated kinase that negatively regulates the G2/M transition of the cell cycle by phosphorylating and inactivating cyclin-dependent kinase 1. The activity of the encoded protein is regulated by polo-like kinase 1. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]

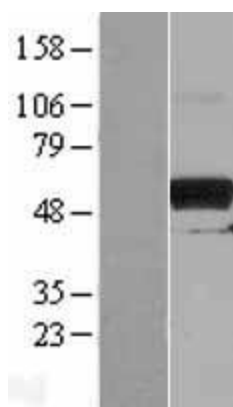
Product images:



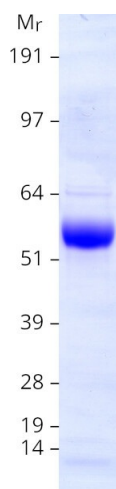
Circular map for RC222657



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PKMYT1 (Cat# RC222657, 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-PKMYT1 (Cat# [TA500874]). Positive lysates [LY401358] (100ug) and [LC401358] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401358]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222657 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PKMYT1 protein (Cat# [TP322657]). The protein was produced from HEK293T cells transfected with PKMYT1 cDNA clone (Cat# RC222657) using MegaTran 2.0 (Cat# [TT210002]).