

Product datasheet for **RC224657**

MATK (NM_002378) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MATK (NM_002378) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MATK
Synonyms:	CHK; CTK; HHYLTk; HYL; HYLTk; Lsk
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224657 representing NM_002378
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACAGGGACATTTCCCTGCTGAACGAAGAGAAGGCAGACCTCGGCGAGGGACCCGTGGTCAGCAGCAGC
 TTCTGGTGAAGCCCGCTTCTCCGAGCCTGGCACCCCTCCCGTCTCAGCCAGGATGCCAACGAGGCG
 CTGGGCCCGGGCACCCAGTGTATCACCAATGCGAGCACACCCGCCCAAGCCAGGGGAGCTGGCCTTC
 CGCAAGGGCGACGTGGTACCATCTGGAGGCCTGCGAGAACAAGAGCTGGTACCGCGTCAAGCACCACA
 CCAGTGGACAGGAGGGGCTGCTGGCAGCTGGGGCCTGCGGGAGCGGGAGGCCCTCTCCGAGACCCCAA
 GCTCAGCCTCATGCCGTGGTCCACGGGAAGATCTCGGGCAGGAGGCTGTCCAGCAGCTGCAGCCTCCC
 GAGGATGGGCTGTTCTGGTGGGGAGTCCGCGGCCACCCGGCGACTACGTCTGTGCGTGAGCTTTG
 GCCGCGAGCTCATCCACTACCGCTGCTGCACCGCAGCGCCACCTCACAAATCGATGAGGCCGTGTTCTT
 CTGCAACCTCATGGACATGGTGGAGCATTACAGCAAGGACAAGGGCGCTATCTGCACCAAGCTGGTGA
 CCAAAGCGGAAACACGGGACCAAGTCGGCCGAGGAGGAGCTGGCCAGGGCGGGCTGGTACTGAACCTGC
 AGCATTGACATTTGGGAGCACAGATCGGAGAGGGAGATTTGGAGCTGTCTGCAGGGTGAAGTACCTGGG
 GCAAAAGGTGGCCGTGAAGAATCAAGTGTGATGTGACAGCCAGGCCCTTCTGGACGAGACGGCCGTC
 ATGACGAAGATGCAACACGAGAACCTGGTGCCTCTCTGGGCGTATCCTGCACAGGGGCTGTACATTG
 TCATGGAGCAGTGAGCAAGGGCAACCTGGTGAACCTTCTGCGGACCCGGGGTCGAGCCCTCGTGAACAC
 CGCTCAGTCTCGAGTTTTCTGACGTGGCCGAGGGCATGGAGTACCTGGAGAGCAAGAAGCTTGTG
 CACCGCGACCTGGCCGCCCAACATCTGGTCTCAGAGGACCTGGTGGCAAGGTGAGCAGCTTTGGCC
 TGGCCAAAGCCGAGCGGGAAGGGCTAGACTCAAGCCGGCTGCCCGTCAAGTGGACGGCCCGGAGGCTCT
 CAAACACGGGAAGTTCACCAGCAAGTCGGATGTCTGGAGTTTTGGGGTGTGCTCTGGGAGGTCTTCTCA
 TATGGACGGGCTCCGTACCCTAAAATGTACTGAAAGAGGTGTCGGAGGCCGTGGAGAAGGGGTACCGCA
 TGGAAACCCCGAGGGCTGTCCAGGCCCGTGCAGCTCCTCATGAGCAGCTGCTGGGAGGACAGCCCGC
 CCGCCGGCCACCTTCCGCAAATGGCCGAGAAGCTGGCCGGGAGCTACGCAGTGCAGGTGCCCCAGCC
 TCCGTCTCAGGGCAGGACGCCGACGGCTCCACCTGCCCCGAAGCCAGGAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224657 representing NM_002378
 Red=Cloning site Green=Tags(s)

MQGHFPAERREGRRRGTRGQQQLLVSPRFLRAWHPPVVSARMPTRRWAPGTQCITKCEHTRPKGELAF
 RKGDVVITILEACENKSWYRVKHHTSGQEGLLAAGALREREALSDPKLSLMPWFHGKISGQEAQQQLQPP
 EDGLFLVRESARHPGDYVLCVSFGRDVIHYRVLHRDGHLTIDEAVFFCNLMVMVEHYSKDKGAICTKLVR
 PKRKHGTKSAEEELARAGWLLNLQHLTLGAQIGEGEFGAVLQGEYLGQKVAVKNIKCDVTAQAFLDATAV
 MTKMQHENLVRLGVLHQLYIVMEHVSIGNLVNFLRTRGRALVNTAQLLQFSLHVAEGMEYLESKLLV
 HRDLAARNILVSEDLVAKVSDFLAKAERKGLDSSRLPVKWTAPEALKHGKFTSKSDVWSFGVLLWEVFS
 YGRAPYPKMSLKEVSEAVEKGYRMEPPEGCPGVHVLMSSCWEAEPARRPPFRKLAEKLAELRSAGAPA
 SVSGQDADGSTSPRSQEP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8064_b10.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002378

ORF Size: 1524 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_002378.4](#)

RefSeq Size: 2104 bp

RefSeq ORF: 1527 bp

Locus ID: 4145

UniProt ID: [P42679](#)

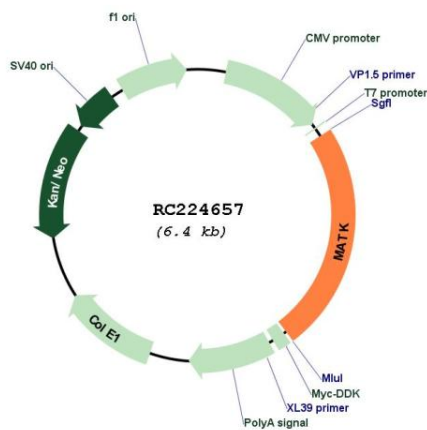
Cytogenetics: 19p13.3

Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency

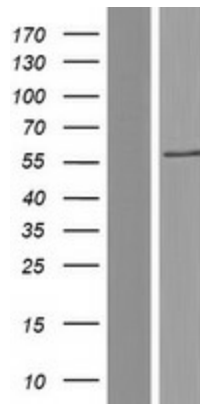
MW: 56.6 kDa

Gene Summary: The protein encoded by this gene has amino acid sequence similarity to Csk tyrosine kinase and has the structural features of the CSK subfamily: SRC homology SH2 and SH3 domains, a catalytic domain, a unique N terminus, lack of myristylation signals, lack of a negative regulatory phosphorylation site, and lack of an autophosphorylation site. This protein is thought to play a significant role in the signal transduction of hematopoietic cells. It is able to phosphorylate and inactivate Src family kinases, and may play an inhibitory role in the control of T-cell proliferation. This protein might be involved in signaling in some cases of breast cancer. Three alternatively spliced transcript variants that encode different isoforms have been described for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC224657



Western blot validation of overexpression lysate (Cat# [LY419363]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224657 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).