

## Product datasheet for **RG223161**

### **MATK (NM\_139355) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MATK (NM_139355) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MATK
Synonyms:	CHK; CTK; HHYLTk; HYL; HYLTk; Lsk
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG223161 representing NM\_139355  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGGCGAGGCTCTCTGGTTTCTGGCGGGCATTTCACGGCTGTGATTCTGCTGAGGAACTCCCC  
 GGGTGAGCCCCCGCTTCCCTCCGAGCCTGGCACCCCTCCCGTCTCAGCCAGGATGCCAACGAGGCCTG  
 GGCCCCGGGACCCAGTGTATCACCAAATGCGAGCACACCCGCCCAAGCCAGGGGAGCTGGCCTCCGC  
 AAGGGCGACGTGGTCACCATCTGGAGGCTGCGAGAACAAGAGCTGGTACCGCGTCAAGCACCACCA  
 GTGGACAGGAGGGGCTGCTGGCAGCTGGGGCGCTGCGGGAGCGGGAGGCCCTCTCCGAGACCCCAAGCT  
 CAGCCTCATGCCGTGGTCCACGGGAAGATCTCGGGCCAGGAGGCTGTCCAGCAGCTGCAGCCTCCGAG  
 GATGGGCTGTTCTGGTGGGAGTCCGCGGCCACCCCGGCGACTACGTCTGTGCGTGAGCTTTGGCC  
 GCGACGTCATCCACTACCGGTGCTGCACCGCGACGGCCACCTACAATCGATGAGGCCGTGTTCTCTG  
 CAACCTCATGGACATGGTGGAGCATTACAGCAAGGACAAGGGCGCTATCTGCACCAAGCTGGTGAGCCA  
 AAGCGGAAACACGGGACCAAGTCGGCCGAGGAGGAGCTGGCCAGGGCGGGCTGGTACTGAACCTGCAGC  
 ATTTGACATTGGGAGCACAGATCGGAGAGGGAGAGTTGGAGCTGTCTGCAGGGTGAGTACCTGGGCA  
 AAAGGTGGCCGTGAAGAAATCAAGTGTGATGTGACAGCCAGGCCTTCTGGACGAGACGGCCGTGATG  
 ACGAAGATGCAACACGAGAACCTGGTGCCTCTCTGGCGTGATCCTGCACCGAGGGGCTGTACATTGTCA  
 TGGAGCACGTGAGCAAGGGCAACCTGGTGAACCTTCTGCGGACCCGGGGTTCGAGCCCTCGTGAACCCGC  
 TCAGCTCCTGCAGTTTCTCTGCACGTGGCCGAGGGCATGGAGTACCTGGAGAGCAAGAAGCTTGTGCAC  
 CGCGACCTGGCCCGCCGAACATCCTGGTCTCAGAGGACCTGGTGCCAAGGTGAGCAGCTTTGGCCTGG  
 CCAAAGCCGAGCGGAAGGGGCTAGACTCAAGCCGGTCCCGTCAAGTGGACGGCCCGAGGCTTCAA  
 ACACGGGAAGTTCACAGCAAGTCGGATGTCTGGAGTTTGGGGTGTGCTCTGGGAGGTCTTCTCATAT  
 GGACGGGCTCCGTACCCTAAAATGTCACTGAAAGAGGTGTCGGAGGCCGTGGAGAAGGGGTACCGCATGG  
 AACCCCCGAGGGCTGTCCAGGCCCGTGCACGTCTCATGAGCAGCTGTGGGAGGCAGAGCCCGCCCG  
 CCGGCCACCTTCCGCAAACCTGGCCGAGAAGCTGGCCCGGAGCTACGCAGTGCAGGTGCCCCAGCCTCC  
 GTCTCAGGGCAGGACGCCGACGGCTCCACCTCGCCCCGAAGCCAGGAGCCC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG223161 representing NM\_139355  
 Red=Cloning site Green=Tags(s)

MAGRGSLSVWRAFHGCDSEELPRVSPRFLRAWHPPPVSARMPTRRWAPGTQCITKCEHTRPKPGEIAFR  
 KGDVVVITILEACENKSWYRVKHHSTSGQEGLLAAGALREREALSDPKLSLMPWFHKGISGQEAQQLPPE  
 DGLFLVRESARHPGDYVLCVSFGRDVIHYRVLHRDGHLTIDEAVFFCNLMDMVEHYSKDKGAICTKLVRP  
 KRKHGTSAAEELARAGWLLNLQHLTLGAQIGEGEFGAVLQGEYLGQKVAVKNIKCDVTAQAFLEDTAVM  
 TKMQHENLVRLLGVILHQGLYIVMEHVSNGNLVNFRLRTRGRALVNTAQLLQFSLHVAEGMEYLESKKLH  
 RDLAARNILVSEDLVAKVSDFGLAKAERKGLDSSRLPVKWTAPEALKHGKFTSKSDVWSFGVLLWEVFSY  
 GRAPYPKMSLKEVSEAVEKGYRMEPPEGCPGVHVMSSCWEAEPARRPPFRKLAEKLARELRSAGAPAS  
 VSGQDADGSTSPRSQEP

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_139355

**ORF Size:** 1521 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\\_139355.3](#)

**RefSeq Size:** 2183 bp

**RefSeq ORF:** 1524 bp

**Locus ID:** 4145

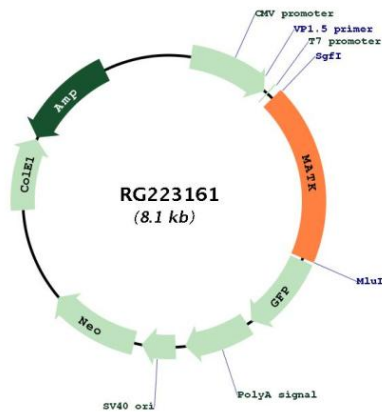
**UniProt ID:** [P42679](#)

**Cytogenetics:** 19p13.3

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

**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 RG223161