

## Product datasheet for **RG217608**

### Germinal Center Kinase (MAP4K2) (NM\_004579) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Germinal Center Kinase (MAP4K2) (NM_004579) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Germinal Center Kinase
Synonyms:	BL44; GCK; RAB8IP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG217608 representing NM\_004579  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCTGGGGG  
 CCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAAGTGGCCGCGTGAAGATAGT  
 CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCAC  
 CCCAATGTGGTGGCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCG  
 GAGGGGGCTCCCTGCAGGAGATTTACCATGCCACTGGGCCCTGGAGGAGCGGCAGATTGCCTACGCTCTG  
 CCGAGAGGCACTGAAGGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCC  
 AACCTTCTCCTCACTCTCCAGGGAGATGTCAAAGTGGCTGACTTTGGGGTGTGAGCGAGCTGACAGCGT  
 CTGTGGCCAAGAGGAGGTCTTTTCATTGGGACTCCCTACTGGATGGCTCCCAGGTTGGCTGCTGTGGAGCG  
 CAAAGGTGGCTACAATGAGCTATGTGACGTCTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTG  
 CAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGCCCTGATGCTCATGTGGAAGAGCAGCTTCCAGCCGC  
 CCAAAGTGAAGATAAGACTCGCTGGACCCAGAATTTCCACCCTTTCTCAAAGTGGCCCTGACCAAGAA  
 TCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTTACGACTCAGCAGCTCCCTCGGGCC  
 CTCCTCACACAGCTGCTGGACAAAGCCAGTGACCTCATCTGGGGACCCCTCCCTGAGGACTGTGAGC  
 TGGAGACCTATGACATGTTTCCAGACACCATCACTCCCGGGGGCAGCACGGCCAGCCGAGAGGACCC  
 CTCGGAGATCCAGTTTACCAGGTGAAATTTGGCGCCCAACGAGGAAGGAACTGACCCACTGAATGAG  
 CCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGAGTCCGGTCCAGG  
 AGGCCCTGGAGGAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCAGGAGCTGGACTCCCGAGACGA  
 TACCATGGGAACCATCAAGCGGGCCCGTTCCTAGGGCCACTCCCACTGACCTCCAGCAGAGGAGCCT  
 CTGTCCAGTCCCCAGGCCCAACAGCTCCCACTGCTGCCACGGCTGGGCCACCATGAAGCAGCGGG  
 AGGATCCTGAGAGGTATCCTGCCACGGCTCCCCCAACTCCCAAGGTGCATATGGGCGCTGCTTCTC  
 CAAGGTCTTCAATGGCTGCCCTGCGGATCCACGCTGCTGTACCTGGATTACCCTGTTACTCGGGAC  
 CAGTTCTGGTGGTAGGGCCGAGGAAGGCATCTACACACTCAACTGCATGAACTGCATGAGGATACGC  
 TGGAGAAGCTGATTTACATCGCTGCTCCTGGCTCTACTGCGTGAACAACGTGCTGCTGCTACTCTCAGG  
 GAAATCCACGCACATCTGGGCCATGACCTCCCAGGCCTGTTGAGCAGCGGAGGCTACAGCAACAGGTT  
 CCCCTCTCCATCCCACCAACCGCTCACCCAGGCATCATCCCAGGCCTTTGCTCTGTCCACCAAGA  
 TTCCTGACACCAAGGCTGCTTGCAGTGTGCTGTTGGTGCAGGATCCCTACACGGGTGCCACCTTCTGCT  
 GGCCGCCCTGCCACCAGCCTGCTCCTGCTGCAGTGGTATGAGCCGCTGCAGAAGTTTCTGCTGCTGAAG  
 AACTTCTCCAGCCCTCTGCCAGCCAGCTGGGATGCTGGAGCCGCTGGTGTGGATGGGAGGAGCTGC  
 CGCAGGTGTGTTGGGGCCGAGGGCCTGAGGGGCCGGCTGCCGCTCCTGTTCCATGCTCCTGCCCT  
 GGAGGCTGGCTGACGCCGACATCCTCATCCCACCTGAGGGGATCCCAGGCTCGGCCAGCAGGTGATC  
 CAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTGTGTGAGGATTGTCAACATGCAGGGCGAGC  
 CCACGGCCCACTGGCACCTGAGCTGACCTTTGATTTCCCATCGAGACTGTGGTGTGCTGCAGGACAG  
 TGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGATACCAATGAGGTGACCCAGGAGATC  
 ACAGATGAAACAAGGATCTTCCGAGTGTGGGGCCACAGAGACATCATCCTGGAGAGCATTCCCACTG  
 ACAACCCAGAGGCGCACGCAACCTCTACATCCTCACGGGCCACAGAGCACCTAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217608 representing NM\_004579  
Red=Cloning site Green=Tags(s)

MALLRDVSLQDPRDRFELLQRVGAGTYGDVYKARDTVTSELAAVKIVKLDPGDDISSLQQEITILRECRH  
PNVVAYIGSYLRNDRLWICMEFCGGSLQEYHATGPLEERQIAYVCREALKGLHHLHSQGIHRDIKGA  
NLLLTLQGDVKLADFGVSGELTASVAKRRSFIGTPYWMAPEVAVERKGGYNELCDVWALGITAIELGEL  
QPPLFHLHPMRALMLMSKSSFQPPKLRDKTRWTQNFHHFLKLALTKNPKKRPTAEKLLQHPFTTQQLPRA  
LLTQLLDKASDPHLGTPSPEDCELETYDMFPDTIHSRGQHGAERTPSEIQFHQVKFGAPRRKETDPLNE  
PWEEEWTLGKEELSGSLLQSVQEALERSLTIRSAEFQELDSPDDTMGTIKRAPFLGPLPTDPPAEEP  
LSSPPGNSSPLLPTAWATMKQREDPERSSCHGLPPTPKVHMGACFSKVFNGCPLRIHAAYTWIHPVTRD  
QFLVVGAEEGIYTLNLHELHEDTLEKLISHRCSWL YCVNNVLLSLSGKSTHIWAHDLPLGFEQRRLLQQV  
PLSIPTNRLTQRIIPRRFALSTKIPDTKGCLQCRVVRNPYTGFLLAALPTSLLLLQWYEPLQKFLLLK  
NFSSPLSPAGMLEPLVLDGKELPQVCVGAEGPEGPGCRVLFHVLPLEAGLTPDILIPPEGIPGSAQQVI  
QVDRDTILVSFERCVRIVNMQGEPTATLAPELTFDFPIETVVCLQDSVLAFWSHGMQGRSLDTNEVTQEI  
TDETRIFRVLGAHRDIILES IPTDNPEAHSNLYILTGHQSTY

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM\_004579

ORF Size: 2436 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\\_004579.2](#), [NP\\_004570.2](#)

**RefSeq Size:** 2964 bp

**RefSeq ORF:** 2463 bp

**Locus ID:** 5871

**UniProt ID:** [Q12851](#)

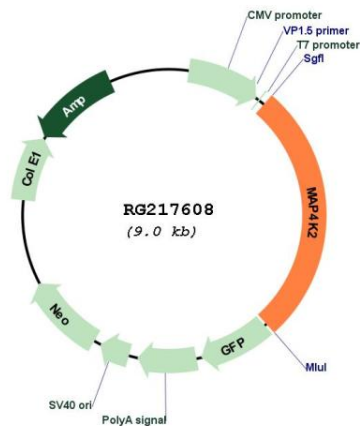
**Cytogenetics:** 11q13.1

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** MAPK signaling pathway

**Gene Summary:** The protein encoded by this gene is a member of the serine/threonine protein kinase family. Although this kinase is found in many tissues, its expression in lymphoid follicles is restricted to the cells of germinal centre, where it may participate in B-cell differentiation. This kinase can be activated by TNF-alpha, and has been shown to specifically activate MAP kinases. This kinase is also found to interact with TNF receptor-associated factor 2 (TRAF2), which is involved in the activation of MAP3K1/MEKK1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

### Product images:



Circular map for RG217608