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Product datasheet for SC323630

Germinal Center Kinase (MAP4K2) (NM_004579) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Germinal Center Kinase (MAP4K2) (NM_004579) Human Untagged Clone
Tag:	Tag Free
Symbol:	Germinal Center Kinase
Synonyms:	BL44; GCK; RAB8IP
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>NCBI ORF sequence for NM_004579, the custom clone sequence may differ by one or more nucleotides

ATGGCGCTGCTGCGGGATGTGTCGCTGCAGGACCCGCGGGACCGCTTCGAGCTGCTGCAGCGCGTGGGGG
CCGGGACCTATGGCGACGTCTACAAGGCCCGCGACACGGTCACGTCCGAACTGGCCGCCGTGAAGATAGT
CAAGCTAGACCCAGGGGACGACATCAGCTCCCTCCAGCAGGAAATCACCATCCTGCGTGAGTGCCGCCAC
CCCAATGTGGTGGCCTACATTGGCAGCTACCTCAGGAATGACCGCTTGTGGATCTGCATGGAGTTCTGCG
GAGGGGGCTCCCTGCAGGAGATTTACCATGCCACTGGGCCCCTGGAGGAGCGGCAGATTGCCTACGTCTG
CCGAGAGGCACTGAAGGGGCTCCACCACCTGCATTCTCAGGGGAAGATCCACAGAGACATCAAGGGAGCC
AACCTTCTCCTCACTCTCCAGGGAGATGTCAAACTGGCTGACTTTGGGGTGTCAGGCGAGCTGACAGCGT
CTGTGGCCAAGAGGAGGTCTTTCATTGGGACTCCCTACTGGATGGCTCCCGAGGTGGCTGCTGTGGAGCG
CAAAGGTGGCTACAATGAGCTATGTGACGTCTGGGCCCTGGGCATCACTGCCATTGAGCTGGGCGAGCTG
CAGCCCCCTCTGTTCCACCTGCACCCCATGAGGGCCCTGATGCTCATGTCGAAGAGCAGCTTCCAGCCGC
CCAAACTGAGAGATAAGACTCGCTGGACCCAGAATTTCCACCACTTTCTCAAACTGGCCCTGACCAAGAA
TCCTAAGAAGAGGCCGACAGCAGAGAAGCTCCTGCAGCACCCGTTCACGACTCAGCAGCTCCCTCGGGCC
CTCCTCACACAGCTGCTGGACAAAGCCAGTGACCCTCATCTGGGGACCCCCTCCCCTGAGGACTGTGAGC
TGGAGACCTATGACATGTTTCCAGACACCATTCACTCCCGGGGGCAGCACGGCCCAGCCGAGAGGACCCC
CTCGGAGATCCAGTTTCACCAGGTGAAATTTGGCGCCCCACGCAGGAAGGAAACTGACCCACTGAATGAG
CCGTGGGAGGAAGAGTGGACACTACTGGGAAAGGAAGAGTTGAGTGGGAGCCTGCTGCAGTCGGTCCAGG
AGGCCCTGGAGGAAAGGAGTCTGACTATTCGGTCAGCCTCAGAATTCCAGGAGCTGGACTCCCCAGACGA
TACCATGGGAACCATCAAGCGGGCCCCGTTCCTAGGGCCACTCCCCACTGACCCTCCAGCAGAGGAGCCT
CTGTCCAGTCCCCCAGGAACCCTGCCCCCACCTCCTTCAGGCCCCAACAGCTCCCCACTGCTGCCCACGG
CCTGGGCCACCATGAAGCAGCGGGAGGATCCTGAGAGGTCATCCTGCCACGGGCTCCCCCCAACTCCCAA
GGTGCATATGGGCGCCTGCTTCTCCAAGGTCTTCAATGGCTGCCCCCTGCGGATCCACGCTGCTGTCACC
TGGATTCACCCTGTTACTCGGGACCAGTTCCTGGTGGTAGGGGCCGAGGAAGGCATCTACACACTCAACC
TGCATGAACTGCATGAGGATACGCTGGAGAAGCTGATTTCACATCGCTGCTCCTGGCTCTACTGCGTGAA
CAACGTGCTGCTGTCACTCTCAGGGAAATCCACGCACATCTGGGCCCATGACCTCCCAGGCCTGTTTGAG
CAGCGGAGGCTACAGCAACAGGTTCCCCTCTCCATCCCCACCAACCGCCTCACCCAGCGCATCATCCCCA
GGCGCTTTGCTCTGTCCACCAAGATTCCTGACACCAAAGGCTGCTTGCAGTGTCGTGTGGTGCGGAACCC
CTACACGGGTGCCACCTTCCTGCTGGCCGCCCTGCCCACCAGCCTGCTCCTGCTGCAGTGGTATGAGCCG
CTGCAGAAGTTTCTGCTGCTGAAGAACTTCTCCAGCCCTCTGCCCAGCCCAGCTGGGATGCTGGAGCCGC
TGGTGCTGGATGGGAAGGAGCTGCCGCAGGTGTGTGTTGGGGCCGAGGGGCCTGAGGGGCCCGGCTGCCG
CGTCCTGTTCCATGTCCTGCCCCTGGAGGCTGGCCTGACGCCCGACATCCTCATCCCACCTGAGGGGATC
CCAGGCTCGGCCCAGCAGGTGATCCAGGTGGACAGGGACACAATCCTAGTCAGCTTTGAACGCTGTGTGA
GGATTGTCAACATGCAGGGCGAGCCCACGGCCACACTGGCACCTGAGCTGACCTTTGATTTCCCCATCGA
GACTGTGGTGTGCCTGCAGGACAGTGTGCTGGCCTTCTGGAGCCATGGGATGCAAGGCCGAAGCCTGGAT
ACCAATGAGGTGACCCAGGAGATCACAGATGAAACAAGGATCTTCCGAGTGCTTGGGGCCCACAGAGACA
TCATCCTGGAGAGCATTCCCACTGACAACCCAGAGGCGCACAGCAACCTCTACATCCTCACGGGCCACCA
GAGCACCTACTAA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004579 unedited
ACCCCCCCGCTTGAAAGCAATGGGCGGTAGGCGTGTACGGGGGGAGGTCTATATAAAGCAGCAGCTCGTT
TAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCCCGGGATATCGTCGAC
CCACGCGTCCGCAGAGCCACGGGCGCCCGCCCCGCCCCGCGCCGCCCCGCGCCGGCTCCGCAGCTCGCGC
CCGCCCGCCTGCCGGCCCGCCCGGCGCCGGGCCATGGCGCTGCTGCAGGATGTGTCACTGCAGACCCGCG
AACCGCTTCAGCTGCTGAGCGCGTGGGGGCCGGACCTATGCCACGTCTACAGCCCCGAACCGGTTAAGTC
TCAACTGGCCACCTTAAGAAAGCCAACCACACCAGGGGAACAACATCGAAAACTC

Kinase Domain Sequence:	>SC323630 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation CYTTKGMGCAAATGGGCGKAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAYCGT CAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCCCGGGATATCGTCGACCCACGCGTCCG CAGAGCCACGGGCGCCCGCCCCGCCCCGCGCCGCCCCGCGCCGGCTCCGCAGCTCGCGCCCGCCCGCCTG CCGGCCCGCCCGGCGCCGGGCCATGGCGCTGCTGCGGGATGTGTC
Restriction Sites:	Please inquire
ACCN:	NM_004579
Insert Size:	3000 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).