

Product datasheet for MR203162

Fam20c (NM_030565) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fam20c (NM_030565) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fam20c
Synonyms:	C76981; DMP-4; DMP4; GEF-CK; mKIAA4081
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203162 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCAAGGAGATCCGGGATGTGACGCGGGATAAGAAGCTATGGAGAACTTTCTTTGTGTCTCCAGCCA
ACAACATCTGTTTCTACGGGGAGTGTTCCTACTACTGTTCCACCGAGCATGCCCTGTGTGGGAGGCCCGA
CCAGATCGAAGGATCCCTGGCGGCTTCTGCCTGACCTGTGCTGGCCAAGAGGAAGACATGGCGGAAC
CCCTGGCGTCGTTCTACCACAAGCGAAAGAAGGCAGAGTGGGAAGTCGACCCTGATTACTGTGAGGAGG
TGAAGCAGACGCCACCCTACGACAGTGGCCACCGAATCCTGGACATCATGGATATGACCGTCTTTGATTT
CCTCATGGGGAACATGGATCGGCATCACTACGAGACCTTTGAGAAGTTCGGGAATGAGACCTTCATCATC
CACTTGGACAACGGGCGCGGGTTTGGGAAATACTCACACGATGAGCTTTCCATTCTCGCTCCTTTCATC
AGTGCTGCAGGATCAGGAGGTCCACCTACCTGAGACTGCAGCTGCTGGCCAAAGAGGAACACAACTGAG
CCTGCTGATGGCCGAGTCCCTGCAGCATGACAAGGTGGCACCCGTGCTCTACCAGCTGCATCTGGAGGCC
CTGGACCGCGGTTGCGCATAGTGTGCAAGGCTGTGCGAGACTGTGTGGAGAAGGACGGGCTGAGCAGTG
TGGTGGAGGACGACCTAGCCACTGAGCACAGAGCCTCCACGGAGAGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR203162 protein sequence
 Red=Cloning site Green=Tags(s)

MTKEIRDVTRDKKLWRTFFVSPANNICFYGECSSYYCSTEHALCGRPDQIEGSLAAFLPDL SLAKRKTWRN
 PWRRSYHKRKKAEWEVDPDYCEEVKQTPPYDSGHRILDIMDMTVDFLMGNMDRHHYETFEKFGNETFII
 HLDNGRGF GKYSHDELSILAPLHQC CRIRRSTYLRLQLLAKEEHKL SLLMAESLQHKVAPVLYQLHLEA
 LDRRLRIVLQAVRDCVEKDGLSSVVEDDLATEHRASTER

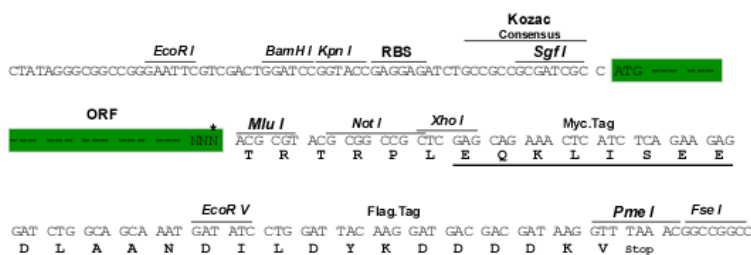
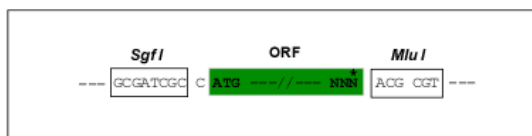
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_030565

ORF Size: 750 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_030565.6](#)

RefSeq Size: 3001 bp

RefSeq ORF: 1740 bp

Locus ID: 80752

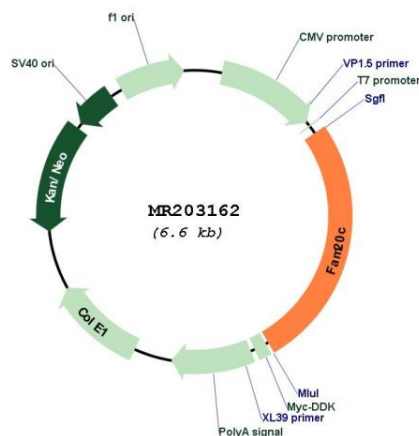
UniProt ID: [Q5MJS3](#)

Cytogenetics: 5 G2

MW: 29.3 kDa

Gene Summary: Golgi serine/threonine protein kinase that phosphorylates secretory pathway proteins within Ser-x-Glu/pSer motifs and plays a key role in biomineralization of bones and teeth (PubMed:22900076, PubMed:22732358, PubMed:25789606). Constitutes the main protein kinase for extracellular proteins, generating the majority of the extracellular phosphoproteome (By similarity). Mainly phosphorylates proteins within the Ser-x-Glu/pSer motif, but also displays a broader substrate specificity (By similarity). Phosphorylates casein as well as a number of proteins involved in biomineralization such as AMELX, AMTN, ENAM and SPP1 (PubMed:25789606). In addition to its role in biomineralization, also plays a role in lipid homeostasis, wound healing and cell migration and adhesion (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203162