

Supplementary information S1

Reverse Primers used for 5' RLM-RACE analysis

name	Sequence	RefSeq	position
RacGAP_Rev_Outer RacGAP_Rev_Inner	GAGCACTTCGCTCAGTCTCT GATTCCGCACATTCAGCATC	AK000733.1	279-259, (-) strand 108-89, (-) strand
MKLP1_Rev_Outer MKLP1_Rev_Inner	CCTGGAGAACCAGTCATTGT GTCTTAGCTCTCGCTGACTT	NM_138555.1	497-476, (-) strand 142-121, (-) strand
Ect2_Rev_Outer Ect2_Rev_Inner	TGGAAGAGTCTGCCAAGCTA CGCGGTGGCTCACACTTGTA	AY376439.1	505-486, (-) strand 370-351, (-) strand

Sequence alignments of 5'RACE products with genomic and mRNA genebank references (following pages)

Sequence alignments of Ect2 5'RACE products with genomic and mRNA genebank references

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                                +1
genomic(1) TGGGAAAGAGGTTGACATCACGC  GCCAATCGGCATGGCTCTTAGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
BC070038.1  ---GCCTATCGGCATGGCTCTTAGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
AY376439.1  -----TTTTTGAATCGGTTGTGGCGGC.....

ect2-12     -----GAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
ect2-15     -----AGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
ect2-14     -----GAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
ect2-13     -----AGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
ect2-11     -----ATCGGCATGGCTCTTAGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
ect2-PCR    -----ATCGGCCTGGCTCTTAGAGAGAGCAGCTTAGTTTTTGAATCGGTTGTGGCGGC.....
    
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(1) Homo Sapiens chromosome 3, clone RP11-816B4, nt 41101-41181, accession #AC108667

Sequence alignments of MgcRacGAP 5'RACE products with genomic and mRNA genebank references

+1

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genomic (1) CCTGACGCGTACGTCACACCGTAGAGGGACGGCGCGGGAGGAATAAAATTTCTCTGTGATTGGTTGGTGAAGGTTTTCAAACCGGAGCTGTGGGCGCGGCCTGCTCTGCCGTTGGGTGAGGCGCGGAGCGAAGT
AK000733.1                                                                                                                                           GCGGAGCGAAGT

RG-2          ACGTCACACCGTAGAGGGACGGCGCGGGAGGAATAAAATTTCTCTGTGATTGGTTGGTGAAGGTTTTCAAACCGGAGCTGTGGGCGCGGCCTGCTCTGCCGTTGGGTGAGGCGCGGAGCGAAGT
RG-16                                                                                                                                           TTTTCAAACCGGAGCTGTGGGCGCGGCCTGCTCTGCCGTTGGGTGAGGCGCGGAGCGAAGT
RG-4                                                                                                                                           TGAGGCGCGGAGCGAAGT
RG-1                                                                                                                                           TTTTCAAACCGGAGCTGTGGGCGCGGCCTGCTCTGCCGTTGGGTGAGGCGCGGAGCGAAGT

genomic (1)  GAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAAGTGAGTAGTGGGGTGCCAGACCAGGTGCGTCTGCCGCTGGATTGTGATAGGAAGCAGAGTGTTCCGTGTGTGAGGCC
AK000733.1  GAAGGGTGGCCAGGTGGGGCCAGGCTGACT.....
BC032754.1  GAAGTGAGTAGTGGGGTGCCAGACCAGGTGCGTCTGCCGCTGGATTGTGATAGGAAGCAGAGTGTTCCGTGTG

RG-2          GAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAA.....
RG-16         GAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAAGTGAGTAGTGGGGTGCCAGACCAGGTGCGTCTGCCGCTGGATTGTGATAGGAAGCAGAGTGTTCCGTGTG
RG-4          GAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAAGTGAGTAGTGGGGTGCCAGACCAGGTGCGTCTGCCGCTGGATTGTGATAGGAAGCAGAGTGTTCCGTGTG
RG-1          GAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAA.....
    
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(1) Homo Sapiens chromosome 12, clone RP11-469H8, nt 77945-77720, accession #AC025154.31
 Note : RGl.seq represented 5 times

Sequence alignments of MKLP1 5'RACE products with genomic and mRNA genebank references

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                                +1
genomic(1)  CTGCGGACGGGCGCTGATTGGCCCGTTTGAATGCGCCAGGCGGGAGCTCACCTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
BC051826.1  -----GCCAGGCGGGAGCTCACCTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
NM_138555.1  -----GCAGAGCACCG.....

mklp1-1     ATTGGCCCGTTTGAATGCGCCAGGCGGGAGCTCACCTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-27    - -----AGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-30    -----AGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-6     -----GTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-2     -----TTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-8     -----TTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-29    -----GGAGCTCACCTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-46    -----ACCTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....
mklp1-36    -----CTGGGCTCTTAGCGTCGCCGCCGGCTTCGCAGAGCACCG.....

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(1) Homo Sapiens chromosome 15, clone RP11-253MP7, nt 85607-85502, accession #AC027237.8

Note : Three Human ESTs (Accession # DR000298.1, BG721996.1 and DB147121.1) are similar to sequence mklp1_1