

Product datasheet for MC225009

Rai1 (NM_001037764) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rai1 (NM_001037764) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rai1
Synonyms: Gt1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC225009 representing NM_001037764
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGTCTTTTCGAGAAAGGTGTGGTTTCCATGGCAAACAGCAAACCTACCCACAGACCTCCCAGGAGA
 CATCGCGCTGGAGAACTACAGGCAGCCGGTCTAGGCTGGCTAAGCTGTGATCGGCAGCGGCTGCTGGC
 CAAGGACTACTACAGCCCTCAGCCCTATACAGGCTATGAGGGTGGCACTGGTACACCTTCTGGCAGGGT
 GCCACAGCAGCTGCAGACAAGTACCACCGAGGCAGCAAATCCCTGCAGGGGAGGCCAGCTTCCCCAGCT
 ATGTTCAAGACAGCAGCCCTACCCAGGGCGCTACTCTGGCGAGGAAGGTCTTCAGACCTGGGGGGGCC
 ACAGCCACCGCTCCTCAGCCACAGCCTCTGCCGGGGCAGTGAGCAAGTATGAGGAGAACCTGATGAAG
 AAGACAGTTGTGCCTCCTCCAAACAGGCAGTACCCTGAGCAGGGCCCCAGCTTCCCTTCCGGACTCACA
 GCCTGCATGTCCCACCACACAGCCTCAGCAGCCCTGGCTTACCCCAAACCTCAAAGGCAGAAACCACA
 GAACGACCTTGCCTCCCCTCTGCCCTTCCCCAGGGCAGCCACTTCCCCAGCATTCCCAGTCTTCCCT
 ACCTCTCCACTTATGCCCAACAGTGCAGGGTGGTGGCAGGGGGCCACTCCTACAAGAGCTGCACAG
 CACCATCTGCCAGCCTCATGATAGGCCGATGAGTCCAATGCGAACCTGGCTCCAGGGCAACGGGTCCA
 GAATCTTACGCTTACCAGCCTGGCCGCTTGGCTACGAGCAGCAGCAGCAAGCACTTCAAGCCGTCAC
 CACACCCAGGAAACACTCCACTACCAGAACCTCGCCAAGTACCAACACTATGGACAGCAAGGCCAGGGCT
 ACTGTCCACCGGACACAGCTGTCAGGACTCCAGAGCAGTATTACCAGACTTTCAGCCGAGCTCCAGCCA
 CTCCCCTGCACGGTCTGTGGTCTGCCCTTCTATAGCTCCACCCCGTCAACTGATGCCAACTCTG
 GAGAACTCCCCTATAGCCAGCAGCCGCTTAGTACTGGGGCTTCCCCACAGGCATCACAGACCACAGCC
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 CAAGCCCTGCAAAGGAGAAGCTGCCTGACAACCTGCTCTCCGACCTCAGCCTGCAGAGCCTCACAGCG
 CTCACCTCCAGGTGAAAACATCTCCAACACCGTGCAGCAGCTTGTGTCCAAGCTACCATGCCAC
 AGAAGAAAGGGTCAAGAACCTCGTGTCCAGGACTCCAGAGCAGCACAAGCCAGCACTGTAGCCCTGA
 AGGCAGCGGCTACTCAGCTGAGCCAGCGGGCACACCGCTGTCTGAGCCGCGGAGCAGCAGCCACAGTCC
 ACCCATGCTGAGCCACAGGACACTGACTACCTGAGTGGCTCTGAGGACCCGCTAGAGCGCAGCTTCTCT



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ACTGCAGCCAGGCCCGGGCAGCCCCGCCAGGGTCAACAGCAACTCCAAGGCTAAGCCCGAGTCTGTGTC
CACCTGTTCTGTGACCTCACCTGATGACATGTCCACCAAGTCCGACGACTCTTCCAGAGCCTGCACAGT
ACTCTGCCCTGGACAGCTTCTCCAAATTTGTGGCAGGCGAGCGGGACTGCCCGCGGCTGCTGCTCAGTG
CCCTGGCACAGGAAGATCTGGCCTCCGAGATCCTGGGACTGCAGGAAGCCATTGTTGAGAAGGCTGACAA
GGCCTGGGCTGAGGCTCCAGCCTGCCAAGGACAATGGCAAGCCACCCTTCTACTGGAGAACCATGGC
GCCTGCCTGGACACTGTAGCAAAGACTTCATGGTCACAGCCAGGGGAGCCAGAGACCCTCCCTGAGCCTT
TGCAGCTGGACAAGGGTGGCAGCACCAAGGACTTCAGCCCCGGGGTGTGTTGAAGACCCCTCTGTGGCCTT
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ACTCCTGACCCACCACAGCAGCATTTGACTGCTTCCAGATACACCCACTGCCAGCTCGGTGGATGGTG
CCAACCCCTTTGCCTGGCCAGAGGAGAACCTGGGCGATGCTTGTCTCGTTGGGGCTCCACCCTGGTGA
GCTTACCAAGGGCTTGGAAACAGGGTGAAGAGCCTCGGACGGCGTGGGCAAGGCAGATGCACACGAGGCC
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CGGGAAGAAGGGCCAGAGATGGAGAGGGCTCCAGGTAGTTCGGCACCTCACAAAGGCTCCTTGGCCCC
GAAGCCTAACAAAGCCTGCTGTACCTGAGGGGCCATTGCTAAGAAAGAGCCTGTGCCACGGGGTAAGAGC
TTACGGAGCCGGCGAGTACACGGGGGCTGCCTGAGGCGGAAGACTCTCCGTGCAGGGTCCAGCAGCTTC
CCAAAGACCTCTGTCTCCAGAGTCTTGACAGGGCTCCACAGGGACAGGCCGAGGGGCTGGAGCCCC
AGGCCGGGGCTGTGAGAAGGCTCCCAAGAATGTACCCGCTCGCTTACAGCTGAGTGAAGCCCCAG
ACTCCTGGACCTCCGGGCTGACTACCACCCACGCCTCCCGACAAACTGGGAGGTAAGCAGCGAGCTG
CCTTCAAGTCTGGCAAGCGGGTTCGAAAACCATACCCAAGGCTGCATCCAGCCCCAGCAACCCTGCTGC
CCTGCCTGTTGCCTCAGACAGCAGCCCCATGGGCTCCAAGACCAAGGAGCCAGACTCTCCAGCATGCCT
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GGCGGCCCTCGGAGAGCCGGATCCAGACTGCCGTGCCACCAAGAAGCTCCCTGCTAACAAACATTTACC
CACTGCGTACAAGGTCTCCAGTGGGCCCCAGAAGGAGTGGATGAACCAGCGGGTCAAAGTACCAAG
CCTGGTACAGGAAACAAGCTTTAGATCGGCTCTCCACAGCTCAAGAGGAAGTCCGCTTTCATGGCAC
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GAGGGCTGAGAGTTCCCTGGCCTTACGGAGGATGGCCTCACCCAGAGGGCCAGACCAGGGGTAGT
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TGCCCAAGTGTGTGAGGACCAAGGTGCTGCCACCGCAAAGGGCCGCGGCTCAAGCTGGAGGCCATAGT
ACAGAAGATCACCTCACCTGGGCTCAAGAACTCGCATGCAGAGTGGCAGGGGCCCTCCTGGGACACCC
CGGAGCCAGCCCTGCCTGAGAGACGTCCAGGGGGCAGTCCAGCCGGGGCGGAAGAGGGTTTAGGAGGAA
TGGGGCAAATGCTACCAGCAGTTCGGAGCTGACCCATTGTGCAGGAACCCAGCCAGCAGGTCCCTAAA
AGGTAACCTTTGAACAGTAAGAAGCTGCCTCTGCTGCTGACTGCCCAAAGCTGAGGCCTTTCATGTCC
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CCTTGGGACCCTCCAAAGGTCCGTTGGAGAAGCGCCATGTCCGGGCCAGCCTCTGCTCCTCGCTCCCCA
CGACAGGGCCAGCAGCACTCAGGGCGGAGGCGAGGACAACCTCCAGTGGAGGAGGCAAGAAGCCAAAGACA
GAGGAGCTGGGACCGGCTCCAGCCCCCTGAAGGCCGGCCCTGCCAGCCCCAGACAAGGGCGCAGAAGC
AGCCGGGCCAAGCCAGCTACAGCAGCTATTCCAAGCGGAAGCGCCTCAGCCGAGGCCGGGGGAAGCCGC
CCACGCTTACCCTGTAAGGGACGTGCCACTCGGAGAAGGCAGCAGCAGGTACTGCCCTGGATCCTGCA
GAGCCTGAAATCCGACTCAAATACATTTCTCTTGAAGAGGCTGCGGGCAGACAGCCGACCCACCCAGCCT
TCTCGCCCTTGTGCGGGTGGAGAAGCGAGATGCTTACACCACATATGCACTGTGCTCAACTCCCCGGG
GGATGAGCCGAAGCCTCACTGGAAGCCATCCTCCTGCTGCCTCCTCCTCCACCTTCTCCTCCTCTTA
GAACCAGCTGGGGCTTCTGACCACATTCCTGGAGGCTCTGTGCTGCAGCAGAGGCCCTCCTGCCCC
TCTCCTCACCATGCATCTGGGGCTGTGGTGTCCAAGGCCCTAAGTACCTCTTGCTTGTCTGCTGCCT
CTGCCAAAACCCGGCCAATTTCAAGGACCTTGGGGACTCTGTGGCCCTACTACCTGAACACTGCCTC
CCCAAAAAGAAGCCAAAACCTCAAGGAGAAGGCGCGGCTGGAGGGCACCTTGGAGGAGGCCTCTGCTC
TCGAGAGAACAACCTCAAAGGCTGGAATGTTCCGGCCAGCACACGGCTGCCGCCCTACCACAGCCACTAT

CACTACCCCCACGGCCCTGGGGAGACTGTCCAGGCCCGATGGCCAGCTGACCCTGCCAAGCAGGGCCCC
 CTGCGCACCAAGTCCCGGGGCTGTACGGCGGCTGCAGAGTTGCTATTGCTGTGATGGTCAGGGGGACG
 GGGGTGAGGAGGTGGCCAGGCTGACAAGAGCCGAAACATGAATGCAGCAAAGAGGGCCCTACAGAACC
 TGGTGGGGACACCAGGAACACTGGGTCCATGAGGCTGTGCTGTGTGGACCAGCGGGGTGTACCTGGTG
 GCCGGGAAGCTCTTTGGGCTGCAGGAGGCCATGAAGGTAGCTGTGGACATGCCGTGTACCAGCTGTCAG
 AGCCCCGGGGCACCATCTCGTCTCTATAAAGGATGTATCCACACCTACCACTACCCATGTGCCAATGA
 CACAGTTGCACGTTTCATTGAGGAGAATTTTACTTTGAAGTGCCCAAACATAAGAGGCTGCCGTTG**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001037764
- Insert Size:** 5670 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).
- 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_001037764.1](#), [NP_001032853.1](#)
- RefSeq Size:** 7125 bp
- RefSeq ORF:** 5670 bp
- Locus ID:** 19377
- UniProt ID:** [Q61818](#)
- Cytogenetics:** 11 B1.3-B2
- Gene Summary:** Transcriptional regulator of the circadian clock components: CLOCK, ARNTL/BMAL1, ARNTL2/BMAL2, PER1/3, CRY1/2, NR1D1/2 and RORA/C. Positively regulates the transcriptional activity of CLOCK a core component of the circadian clock. Regulates transcription through chromatin remodeling by interacting with other proteins in chromatin as well as proteins in the basic transcriptional machinery. May be important for embryonic and postnatal development. May be involved in neuronal differentiation.[UniProtKB/Swiss-Prot Function]
- Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same protein.

