

Product datasheet for **MC229680**

Rai1 (NM_009021) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rai1 (NM_009021) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rai1
Synonyms:	Gt1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC229680 representing NM_009021 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGTCTTTTCGAGAAAGGTGTGGTTTCCATGGCAAACAGCAAACACTACCCACAGACCTCCCAGGAGA
CATCGCGCTGGAGAACTACAGGCAGCCGGGTAGGCTGGGCTAAGCTGTGATCGGCAGCGGCTGCTGGC
CAAGGACTACTACAGCCCTCAGCCCTATACAGGCTATGAGGGTGGCACTGGTACACCTTCTGGCACGGTG
GCCACAGCAGCTGCAGACAAGTACCACCGAGGCAGCAAATCCCTGCAGGGGAGGCCAGCTTCCCCAGCT
ATGTTCAAGACAGCAGCCCTACCCAGGGCGCTACTCTGGCGAGGAAGGTCTTCAGACCTGGGGGGCCCC
ACAGCCACCGCCTCCTCAGCCACAGCCTCTGCCGGGGCAGTGAGCAAGTATGAGGAGAACCTGATGAAG
AAGACAGTTGTGCCTCCTCCAAACAGGCAGTACCTGAGCAGGGCCCCAGCTTCCCTTCCGGACTCACA
GCCTGCATGTCCCACCACACAGCCTCAGCAGCCCTGGCTTACCCCAAACCTCCAAGGCAGAAACCACA
GAACGACCTTGCCTCCCCCTGCCCTTCCCCAGGGCAGCCACTTCCCCAGCATTCCCAGTCTTCCCT
ACCTCCTCACTTATGCCCAACAGTGCAGGGTGGTGGCAGGGGGCCACTCCTACAAGAGCTGCACAG
CACCATCTGCCAGCCTCATGATAGGCCGATGAGTGCCAATGCCAACCTGGCTCCAGGGCAACGGGTCCA
GAATCTTACAGCTTACCAGCCTGGCCGCTTGGCTACGAGCAGCAGCAGCAAGCATTCAAGGCCGTAC
CACACCCAGGAAACACTCCAACAGAACTCGCCAAGTACCAACTATGGACAGCAAGGCCAGGGCT
ACTGTCCACCGGACACAGCTGTCCAGACTCCAGAGCAGTATTACCAGACTTTCAGCCGAGCTCCAGCCA
CTCCCCTGCACGGTCTGTGGTCTGCTCCCTTCTATAGCTCCACCCCGTCACTGATGCCAACTCTG
GAGAACTCCCCTATAGCCAGCAGCCGCTTAGTACTGGGGCTTCCCACAGGCATCACAGACCACAGCC
ACTTTATGCCCTGCTTAACCCGTCCCCAACAGATGCTGCCAGCTCTGTGGACCCCGAGCCGGCAACTG
CAAGCCCTGCAAAGGAGAAGCTGCCTGACAACCTGCTCTCCGACCTCAGCCTGCAGAGCCTCACAGCG
CTCACCTCCAGGTGAAAACATCTCCAACACCGTGCAGCAGCTTGTGTCCAAGCTACCATGCCAC
AGAAGAAAGGGTCAAGAACCTCGTGTCCAGGACTCCAGAGCAGCAGCAAAAGCCAGCACTGTAGCCCTGA
AGGCAGCGGCTACTCAGCTGAGCCAGCGGGCACACCGCTGTCTGAGCCGCGGAGCAGCAGCCACAGTCC



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ACCCATGCTGAGCCACAGGACTGACTACCTGAGTGGCTCTGAGGACCCGCTAGAGCGCAGCTTCTCT
 ACTGCAGCCAGGCCCGGGCAGCCCCGCCAGGGTCAACAGCAACTCCAAGGCTAAGCCCGAGTCTGTGC
 CACCTGTTCTGTGACCTCACCTGATGACATGTCCACCAAGTCCGACGACTCTTCCAGAGCTGCACAGT
 ACTCTGCCCTGGACAGCTTCTCCAAATTTGTGGCAGGCGAGCGGGACTGCCCGGGCTGCTGCTCAGTG
 CCCTGGCACAGGAAGATCTGGCTCCGAGATCTGGGACTGCAGGAAGCCATTGTTGAGAAGGCTGACAA
 GGCCTGGGCTGAGGCTTCCAGCTGCCAAGGACAATGGCAAGCCACCCTTCTACTGGAGAACCATGGC
 GCTGCTGGACACTGTAGCAAAGACTTCATGGTCACAGCCAGGGGAGCCAGAGACCCTCCCTGAGCCTT
 TGCAGCTGGACAAGGGTGGCAGCACCAAGGACTTCAGCCCGGGGCTGTTTGAAGACCCCTCTGTGGCCTT
 TGCCACCACTGACCCGAAGAAAACAAGCAGTCCCTGTCTTCGGCACCAAGCCTTTGCTAGGGACTGCC
 ACTCCTGACCCACACAGCAGCATTTGACTGCTTCCAGATACACCCACTGCCAGCTCGGTGGATGGTG
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 GCTTACCAAGGGCTTGGAAACAGGGTGAAGAGCCTCGGACGGCGTGGCAAGGCAGATGCACACGAGGCC
 TCTGCTTGCATGGGCTTCCAGGAGGATCATGCCATCGGGAAGCCAGCAGCCGACTGTCCGGGACTTCA
 AACAGCAGGAGGCAGAGGGGGTAAAGAGGAGGTGGTGGTTGCTGCAGTGCCCGAGGTGCCAAGGC
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 CCCCTGGCAGGAAGGAGGACCTGGAAGCTGAAGAGGAGTACTTCTCTGTGTGAACTGCTGGGGAGCC
 CTGAGCAGAGGCCAGCCTGCAGGACCCGTTGTCCCAAAGGCCCGCTGATGTGCACCAAGGAGGAGGC
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 CTGGGCCCTCTGTGGGTGCCAATCAAAGGTTCAAGCTGGTTTGAATCTTCTGTGCACATGAAGC
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 GAAGCCTAACAGCCTGCTGTACCTGAGGGGCCATTGCTAAGAAAGAGCCTGTGCCACGGGGTAAGAGC
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 CCAAAGACCTTGTCTCCAGAGTCTTGACACAGGGCCTCACAGGGACAGGCCGAGGGGCTGGAGCCCC
 AGGCCGGGGCTGTGAGAAGGGTCCCCAGAATGTGTACCCGCTCGCTTACAGCTGTAGTGAGCCCAAG
 ACTCCTGGACCTCCGGGCTGACTACCACCCACGCCTCCCGACAACTGGGAGGTAAGCAGCGAGCTG
 CCTTCAAGTCTGGCAAGCGGGTGGGAAAACCATCACCAAGGCTGCATCCAGCCCAAGCAACCCTGCTGC
 CCTGCCTGTTGCCTCAGACAGCAGCCCCATGGGCTCCAAGACCAAGGAGCCAGACTCTCCAGCATGCCT
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 GAGGGCTGAGAGTTCCCTGGCCTTACGGAGGATGGCCTCACCCAGAGGGCCAGACCCAGGGGTAGT
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 TGCCCAAGTGTGTGAGGACCAAGGTGCTGCCACCCGAAAGGGCCGCGGCTCAAGCTGGAGGCCATAGT
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 CGGAGCCAGCCCTGCCTGAGAGACGTCCAGGGGGCAGTCCAGCCGGGGCGGAAGAGGGTTTAGGAGGAA
 TGGGGCAAATGCTACCAGCAGCTTCCGGAGCTGACCCATTGTGCAGGAACCCAGCCAGCAGTCCCTAAA
 AGGTAACCTCTTGAACAGTAAGAAGCTGTCTCTGCTGCTGACTGCCCAAAGCTGAGGCTTTCATGTCC
 CCGGAGACCCTGCCATCACTAGGGACTGCCCAGCACCGAAGAAAAGAGCCGGAAGGCAAGCTGGGA
 CCTTGGGACCCTCCAAAGGTCCGTTGGAGAAGCGGCAATGTCCGGCCAGCCTCTGCTCCTCGCTCCCCA
 CGACAGGGCCAGCAGCACTCAGGGCGGAGGCGAGGACAACCTCCAGTGGAGGAGGCAAGAAGCCAAAGACA
 GAGGAGCTGGGACCGGCTCCAGCCCCCTGAAGGCCGGCCCTGCCAGCCCCAGACAAGGGCGCAGAAGC
 AGCCGGGCAAGCCAGCTACAGCAGCTATTCCAAGCGGAAGCGCCTCAGCCGAGGCCGGGGAGACCCG
 CCACGCTTACCCTGTAAGGGACGTGCCACTCGGAGAAGGCAGCAGGTAAGTCCCTGGATCCTGCA
 GAGCCTGAAATCCGACTCAAATACATTTCTCTTGAAGAGGCTCGGGCAGACAGCCGACCCACCCAGCCT
 TCTCGCCCTTGTGCGGGTGGAGAAGCGAGATGCTTACACCACATATGCACTGTGCTCAACTCCCCGGG
 GGATGAGCCGAAGCCTCACTGGAAGCCATCTCTCTGCTGCCTCTCTCCACCTTCTCTCTCTCTTA
 GAACCAGCTGGGGCTTCTGACCACATTCCTGGAGGCTCTGTGCTGCAGCAGAGGGCCCTCCCTGCCCC
 TCTCTCCACCATGCATCTGGGGCTGTGGTGTCCAAGGCCCTAAGTACCTTGTGCTTGTCTGCTGCT
 CTGCCAAAACCCGGCAAATTTCAAGGACCTTGGGGACTCTGTGGCCCTACTACCTGAACACTGCCTC
 CCCAAAAGAAGCCAAAACCTCAAGGAGAAGGCGGGCTGGAGGGCACCTTGGAGGAGGCCTCTGTGCTC

TCGAGAGAACACTCAAAGGCCTGGAATGTTTCGGCCAGCACCACGGCTGCCGCCCTACCACAGCCACTAT
 CACTACCCCCACGGCCCTGGGGAGACTGTCAGGCCCGATGGCCAGCTGACCCTGCCAAGCAGGGCCCC
 CTGCGCACCAGTGCCCGGGCCTGTCACGGCGGCTGCAGAGTTGCTATTGCTGTGATGGTCAGGGGGACG
 GGGGTGAGGAGGTGGCCAGGCTGACAAGAGCCGCAAACATGAATGCAGCAAAGAGGGCCCTACAGAACC
 TGGTGGGGACACCAGGAACACTGGGTCCATGAGGCCTGTGCTGTGTGGACCAGCGGGGTGTACCTGGTG
 GCCGGGAAGCTCTTTGGGCTGCAGGAGGCCATGAAGGTAGCTGTGGACATGCCGTGTACCAGCTGTCACG
 AGCCCGGGGCGACCATCTCGTGCTCCTATAAAGGATGTATCCACACCTACCACTACCCATGTGCCAATGA
 CACAGGTTGCACGTTTCATTGAGGAGAATTTTACTTTGAAGTGCCCAACATAAGAGGCTGCCGTTGTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_009021
- 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_009021.2](#), [NP_033047.2](#)
- RefSeq Size:** 7348 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 (1) represents the longer transcript. Variants 1 and 2 encode the same protein.