

Product datasheet for **MC217288**

Rorc (NM_011281) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rorc (NM_011281) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rorc
Synonyms:	Nr1f3; RORgamma; Thor; TOR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC217288 representing NM_011281
 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGACAGGGCCCCACAGAGACACCACCGACATCTCGGAGCTGCTGGCTGCAAGAAGACCCACACCT
 CACAAATTGAAGTGATCCCTTGCAAGATCTGTGGGACAAGTCATCTGGGATCCACTACGGGTTATCAC
 CTGTGAGGGGTGCAAGGGCTTCTCCGCCGAGCCAGCAGTGTAAATGTGGCTACTCCTGCACGCGTCAG
 CAGAACTGCCCATTTGACCGAACCCAGCCGAACCGATGCCAGCATTGCCGCTGCAGAAGTGCCTGGCTC
 TGGGATGTCCCAGATGCTGTCAAGTTTGGCCGAATGTCCAAGAAGCAGAGGGACAGTCTACATGCAGA
 AGTGCAGAAAACACTGCAACAGCAGCAGCAACAGGAACAAGTGGCCAAGACTCCTCCAGCTGGGAGCCGC
 GGAGCAGACACTTACATACACTTTAGGGCTCTCAGATGGCAGCTACCACTGGGCGCCTCACCTGACC
 TACCCGAGGCCTCTGCTTGTCCCCTGGCTCCTGAGAGCCTCAGGCTCTGGCCACCATATTCCAATAC
 CTTGGCCAAAACAGAGGTCCAGGGGCCTCCTGCCACCTTGAGTATAGTCCAGAACGAGGCAAAGCTGAA
 GGCAGAGACAGCATCTATAGCACTGACGGCCAACCTACTCTTGAAGATGTGGACTTCGTTTTGAGGAAA
 CCAGGCATCCTGAACTTGGGGAACCCAGAACAGGGTCCAGACAGCCACTGCATTCCAGTTTCTGCAGTGC
 CCCAGAGGTACCATATGCCTCTCTGACAGACATAGAGTACCTGGTACAGAATGTCTGCAAGTCTTCCGA
 GAGACATGCCAGCTGCGACTGGAGGACCTTCTACGGCAGCGCACCAACCTCTTTTACGGGAGGAGGTGA
 CCAGCTACCAGAGGAAGTCAATGTGGGAGATGTGGGAGCGCTGTGCCACCACCTCACTGAGGCCATTCA
 GTATGTGGTGGAGTTTGCCAAGCGGCTTTCAGGCTTTCATGGAGCTCTGCCAGAATGACCAGATCATACTA
 CTGAAAGCAGGAGCAATGGAAGTCGCTAGTCAGAATGTGCAGGCCTACAATGCCAACACCCACACAG
 TCTTTTTGAAGGCAAATACGGTGGTGTGGAGCTGTTTCGAGCCTTGGGCTGCAGCGAGCTCATAGTCC
 CATATTTGACTTTTCCCACTTCCCTCAGCGCCCTGTGTTTTCTGAGGATGAGATTGCCCTCTACACGGCC
 CTGTTTCTCATCAATGCCAACCGTCTGGGCTCCAAGAGAAGAGGAGAGTGAACATCTGCAATACAATT
 TGGAACTGGCTTTCATCATCTCTGCAAGACTCATCGACAAGGCCTCCTAGCCAAGTGCACCCAA
 AGGAAAACCTCCGGAGCCTGTGCAGCCAACATGTGAAAAGCTGCAGATCTTCCAGCACCTCCACCCCATC
 GTGGTCCAAGCCGCTTCCCTCCACTCTATAAGGAACTTTCAGCACTGATGTTGAATCCCTGAGGGGC
 TGCAAAAGTGA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-RsrII

ACCN: NM_011281

Insert Size: 1551 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: [BC014804](#), [AAH14804](#)

RefSeq Size: 1936 bp

RefSeq ORF: 1551 bp

Locus ID: 19885

UniProt ID: [P51450](#)

Cytogenetics: 3 F2.1

Gene Summary:

Nuclear receptor that binds DNA as a monomer to ROR response elements (RORE) containing a single core motif half-site 5'-AGGTCA-3' preceded by a short A-T-rich sequence. Key regulator of cellular differentiation, immunity, peripheral circadian rhythm as well as lipid, steroid, xenobiotics and glucose metabolism. Considered to have intrinsic transcriptional activity, have some natural ligands like oxysterols that act as agonists (25-hydroxycholesterol) or inverse agonists (7-oxygenated sterols), enhancing or repressing the transcriptional activity, respectively. Recruits distinct combinations of cofactors to target gene regulatory regions to modulate their transcriptional expression, depending on the tissue, time and promoter contexts (PubMed:17666523, PubMed:19381306, PubMed:19965867, PubMed:21853531, PubMed:22789990, PubMed:23723244). Regulates the circadian expression of clock genes such as CRY1, ARNTL/BMAL1 and NR1D1 in peripheral tissues and in a tissue-selective manner (PubMed:22753030). Competes with NR1D1 for binding to their shared DNA response element on some clock genes such as ARNTL/BMAL1, CRY1 and NR1D1 itself, resulting in NR1D1-mediated repression or RORC-mediated activation of the expression, leading to the circadian pattern of clock genes expression. Therefore influences the period length and stability of the clock (PubMed:22753030). Involved in the regulation of the rhythmic expression of genes involved in glucose and lipid metabolism, including PLIN2 and AVPR1A. Negative regulator of adipocyte differentiation through the regulation of early phase genes expression, such as MMP3. Controls adipogenesis as well as adipocyte size and modulates insulin sensitivity in obesity. In liver, has specific and redundant functions with RORA as positive or negative modulator of expression of genes encoding phase I and Phase II proteins involved in the metabolism of lipids, steroids and xenobiotics, such as SULT1E1 (PubMed:21853531). Also plays also a role in the regulation of hepatocyte glucose metabolism through the regulation of G6PC and PCK1. Regulates the rhythmic expression of PROX1 and promotes its nuclear localization.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the shortest transcript and encodes the longer isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.