Recombinant Mouse RORC Protein (1-516 aa), His-tagged

Cat. No. RORC-2011M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse RORC Protein (1-516 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Epigenetics and Nuclear Signaling. Protein Description: Full Length.
Species	Mouse
Source	Yeast
ProteinLength	1-516 aa
Description	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,

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	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.
Form	Tris-based buffer,50% glycerol
Molecular Mass	60.1 kDa
AA Sequence	MDRAPQRHHRTSRELLAAKKTHTSQIEVIPCKICGDKSSGIHYGVITCEGCKGFFRRS QQCNVAYSCTRQQNCPIDRTSRNRCQHCRLQKCLALGMSRDAVKFGRMSKKQRD SLHAEVQKQLQQQQQQEQVAKTPPAGSRGADTLTYTLGLSDGQLPLGASPDLPEA SACPPGLLRASGSGPPYSNTLAKTEVQGASCHLEYSPERGKAEGRDSIYSTDGQLT LGRCGLRFEETRHPELGEPEQGPDSHCIPSFCSAPEVPYASLTDIEYLVQNVCKSFR ETCQLRLEDLLRQRTNLFSREEVTSYQRKSMWEMWERCAHHLTEAIQYVVEFAKRL SGFMELCQNDQIILLTAGAMEVVLVRMCRAYNANNHTVFFEGKYGGVELFRALGCS ELISSIFDFSHFLSALCFSEDEIALYTALVLINANRPGLQEKRRVEHLQYNLELAFHHHL CKTHRQGLLAKLPPKGKLRSLCSQHVEKLQIFQHLHPIVVQAAFPPLYKELFSTDVES PEGLSK
Purity	> 90% as determined by SDS-PAGE.

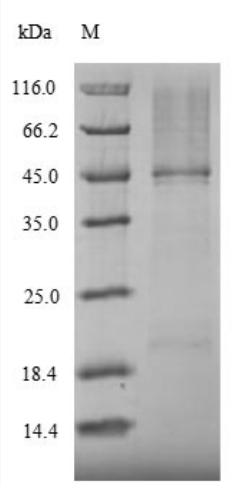
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Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

Gene Name	Rorc RAR-related orphan receptor gamma [Mus musculus]
Official Symbol	RORC
Synonyms	RORC; thymus orphan receptor; TOR; Thor; Nr1f3; RORgamma;
Gene ID	19885
mRNA Refseq	NM_011281
Protein Refseq	NP_035411
UniProt ID	P51450

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(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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