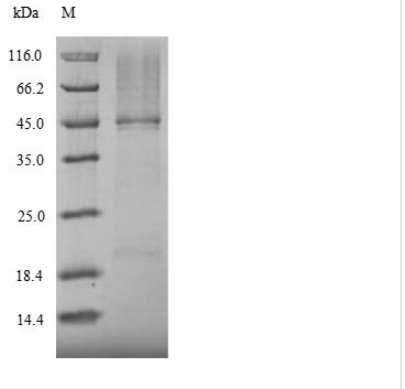
Recombinant Mouse Nuclear receptor ROR-gamma (Rorc)

Product Code	CSB-YP020071MO
Relevance	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.
Abbreviation	Recombinant Mouse Rorc protein
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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P51450
Alias	Nuclear receptor RZR-gamma Nuclear receptor subfamily 1 group F member 3 RAR-related orphan receptor C Retinoid-related orphan receptor-gamma Thymus orphan receptor Short name: TOR
Product Type	Recombinant Protein

Immunogen Species	Mus musculus (Mouse)
Purity	≥ 90% as determined by SDS-PAGE.
Sequence	MDRAPQRHHRTSRELLAAKKTHTSQIEVIPCKICGDKSSGIHYGVITCEGCKGF FRRSQQCNVAYSCTRQQNCPIDRTSRNRCQHCRLQKCLALGMSRDAVKFGR MSKKQRDSLHAEVQKQLQQQQQQEQVAKTPPAGSRGADTLTYTLGLSDGQL PLGASPDLPEASACPPGLLRASGSGPPYSNTLAKTEVQGASCHLEYSPERGK AEGRDSIYSTDGQLTLGRCGLRFEETRHPELGEPEQGPDSHCIPSFCSAPEVP YASLTDIEYLVQNVCKSFRETCQLRLEDLLRQRTNLFSREEVTSYQRKSMWEM WERCAHHLTEAIQYVVEFAKRLSGFMELCQNDQIILLTAGAMEVVLVRMCRAY NANNHTVFFEGKYGGVELFRALGCSELISSIFDFSHFLSALCFSEDEIALYTALV LINANRPGLQEKRRVEHLQYNLELAFHHHLCKTHRQGLLAKLPPKGKLRSLCS QHVEKLQIFQHLHPIVVQAAFPPLYKELFSTDVESPEGLSK
Research Area	Epigenetics and Nuclear Signaling
Source	Yeast
Target Names	Rorc
Protein Names	Recommended name: Nuclear receptor ROR-gamma Alternative name(s): Nuclear receptor RZR-gamma Nuclear receptor subfamily 1 group F member 3 Retinoid-related orphan receptor-gamma Thymus orphan receptor Short name= TOR
Expression Region	1-516aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	60.1kDa
Protein Length	Full Length
Image	 (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
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