OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR225513

Rara (NM_009024) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rara (NM_009024) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rara
Synonyms:	Nr1b1; RAR; RARalpha1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR225513 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGCAATAGCAGTTCCTGCCCAACACCTGGGGGCGGGCACCTCAATGGGTACCCAGTACCCCCCT
ACGCCTTCTTCTTTCCCCCTATGCTGGGTGGACTCTCCCCACCCGGCGCTCTCACCAGCCTCCAGCACCA
GCTTCCAGTCAGTGGTTACAGCACACCGTCCCCAGCCACCATCGAGACCCAGAGCAGCAGTTCCGAAGAG
ATAGTACCCAGCCCTCCCTCACCACCGCCCCTGCCCCGCATCTACAAGCCTTGCTTTGTTTGTCAAGACA
AATCATCCGGCTACCACTATGGGGTCAGTGCCTGTGAGGGCTGTAAGGGCTTCTTCCGACGAAGCATCCA
GAAGAACATGGTGTATACGTGTCACCGGGACAAGAACTGCATCATCAACAAGGTGACCCGGAACCGCTGC
CAGTACTGCCGGCTGCAGAAATGTTTCGACGTGGGCATGTCCAAGGAGTCGGTGCGAAACGATCGAAACA
AAAAGAAGAAAGAGGCACCCAAGCCCGAGTGCTCAGAGAGCTACACGCTGACGCCTGAGGTGGGCGAGCT
CATTGAGAAGGTTCGCAAAGCGCACCAGGAGACCTTCCCGGCCCTCTGCCAGCTGGGCAAGTACACTACG
AACAACAGCTCAGAACAACGAGTCTCCCTGGACATTGACCTCTGGGACAAGTTCAGTGAACTCTCCACCA
AGTGCATCATTAAGACTGTGGAGTTCGCCAAGCAGCTTCCCGGCTTCACCACCCTCACCATCGCCGACCA
GATCACCCTCCTCAAGGCTGCCTGCCTGGATATCCTGATTCTGCGAATCTGCACGCGGTACACGCCTGAG
CAAGACACAATGACCTTCTCAGATGGACTGACCCTGAACCGGACTCAGATGCACAACGCTGGCTTTGGCC
CCCTCACCGACTTGGTCTTTGCCTTCGCCAACCAGCTGCTGCCCCTGGAGATGGACGATGCTGAGACTGG
ACTGCTCAGTGCCATCTGCCTCATCTGTGGAGACCGACAGGACCTGGAGCAGCCAGACAAGGTGGACATG
CTGCAAGAGCCGCTGCTGGAAGCACTGAAAGTCTACGTCCGGAAACGGAGGCCCAGCCGACCCCACATGT
TCCCCAAGATGCTGATGAAGATCACAGACCTTCGGAGCATCAGCGCCAAGGGAGCTGAACGGGTGATCAC
ATTGAAGATGGAGATCCCAGGCTCCATGCCACCGCTGATCCAGGAAATGCTGGAGAACTCTGAGGGCTTG
GACACTCTAAGCGGACAGTCGGGGGGCGGAACACGAGATGGGGGTGGCCTGGCCCCCCCTCCGGGTAGCT
GTAGCCCCAGCCTCAGTCCCAGCTCCCACAGAAGCAGCCCAGCCACCCAATCCCCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

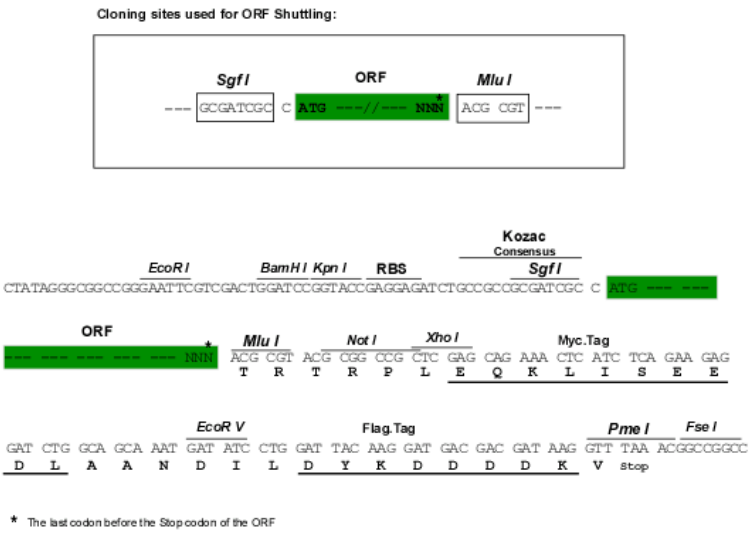
>MR225513 protein sequence
Red=Cloning site Green=Tags(s)

MASNSSSCPTPGGGHLNGYPVPPYAFFFPPMLGGLSPPGALTSLQHQLPVSGYSTPSPATIETQSSSSEE
IVPSPPSPPPLPRIYKPCFVCQDKSSGYHYGVSACEGCKGFFRRSIQKNMVYTCHRDKNCIINKVTRNRC
QYCRLQKCFDVGMSKESVRNDRNKKKKEAPKPECSESYTLTPEVGELIEKVRKAHQETFPALCQLGKYTT
NNSSEQRVSLDIDLWDKFSELSTKCIIKTVEFAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTPE
QDTMTFSDGLTLNRTQMHNAGFGPLTDLVFAFANQLLPLEMDDAETGLLSAICLICGDRQDLEQPDKVDM
LQEPLLEALKVYVRKRRPSRPHMFPKMLMKITDLRSISAKGAERVITLKMEIPGSMPPLIQEMLENSEGL
DTLSGQSGGGTRDGGGLAPPPGSCSPSLSPSSHRSSPATQSP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_009024

ORF Size: 1389 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

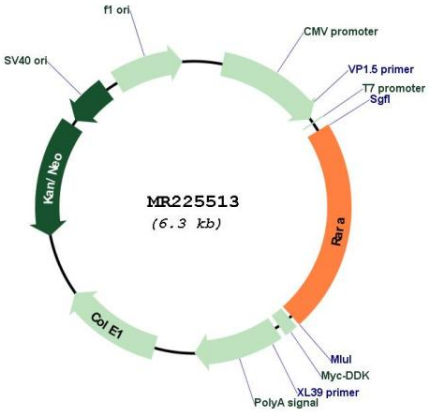
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_009024.2, NP_033050.2
RefSeq Size:	3251 bp
RefSeq ORF:	1389 bp
Locus ID:	19401
UniProt ID:	P11416
Cytogenetics:	11 62.76 cM
MW:	50.7 kDa
Gene Summary:	Receptor for retinoic acid (PubMed:17205979). Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes (PubMed:17205979). The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5 (PubMed:17205979). In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone deacetylation, chromatin condensation and transcriptional suppression (By similarity). On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation (PubMed:17205979, PubMed:9230306, PubMed:19078967). Formation of heterocomplex with histone deacetylases might lead to inhibition of RARE DNA element binding and to transcriptional repression (By similarity). Transcriptional activation and RARE DNA element binding might be supported by the transcription factor KLF2 (By similarity). RARA plays an essential role in the regulation of retinoic acid-induced germ cell development during spermatogenesis (PubMed:15901285). Has a role in the survival of early spermatocytes at the beginning prophase of meiosis (PubMed:15901285, PubMed:17905941). In Sertoli cells, may promote the survival and development of early meiotic prophase spermatocytes (PubMed:10660575, PubMed:17905941). In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (PubMed:19389355). Together with RXRA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells (By similarity). In association with HDAC3, HDAC5 and HDAC7 corepressors, plays a role in the repression of microRNA-10a and thereby promotes the inflammatory response (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225513