

## Product datasheet for MR204575

### Rack1 (NM\_008143) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rack1 (NM_008143) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rack1
Synonyms:	AL033335; GB-like; Gnb2-rs1; Gnb2l1; p205
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204575 representing NM_008143 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCGAGCAGATGACCCTTCGCGGGACCCTTAAGGGCCACAATGGATGGGTAACACAGATCGCCACCA  
CACCGCAGTTCGCGGACATGATCCTGTCTGCGTCTCGAGACAAGACCATCATCATGTGGAAGCTGACCAG  
AGATGAGACCAACTATGGCATAACCACAGCGTGTCTGAGAGGTCCTCCACTTCGTTAGTGATGTTGTT  
ATCTCCTCTGATGGTCAGTTTGCCTCTCGGGCTCTGGGACGGAACGCTGCGCCTCTGGGATCTCACAA  
CGGGCACCACCACAAGGCGATTTGTGCGCCACACCAAGGATGTGTTGAGCGTGGCCTTCTCCTCTGACAA  
CCGGCAGATTGTCTCTGGGTCCCGAGACAAGACCATAAAGTTATGGAATACTCTGGGTGTCTGCAAGTAC  
ACGGTCCAGGATGAGAGTCATTGAGAAATGGGTGCTTGTGTCCGCTTCTCCCGAACAGCAGCAACCCCTA  
TCATCGTCTCCTGCGGATGGGACAAGCTGGTCAAGGTGTGGAATCTGGCTAACTGCAAGCTAAAGACCAA  
CCACATTGGCCACACTGGCTACCTGAACACAGTACTGTCTCTCCAGATGGATCCCTCTGTGCTTCTGGA  
GGCAAGGATGGCCAGGCTATGCTGTGGGATCTCAATGAAGGCAAGCACCTTACACTTTAGATGGTGGGG  
ACATCATCAATGCCTTGTGCTTCAGCCCCAACCGCTACTGGCTCTGCGTGCCACTGGCCCCAGCATCAA  
GATCTGGGACTTGGAGGGCAAGATCATTGTAGATGAATTGAAGCAAGAAGTTATCAGCACCAGCAGCAAG  
GCAGAGCCACCCAGTGTACCTCCTTGGCATGGTCTGCTGATGGCCAGACTCTGTTTGTGGCTATACAG  
ACAACCTGGTGCGAGTATGGCAGGTAACCTATTGGTACCCCG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204575 representing NM\_008143  
 Red=Cloning site Green=Tags(s)

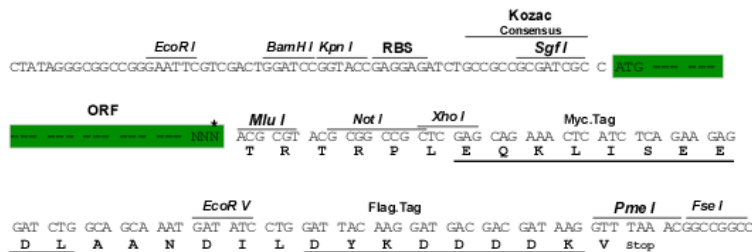
MTEQMTLRGTLKGHNGWVTQIATTPQFPDMILSASRDKTIIMWKLTRDETNYGIPQRALRGHSHFVSDVV  
 ISSDGGQFALSGSWDGLRLWDLTTGTTTRRFVGHTKDVLVAFSSDNRQIVSGSRDKTIKLNWTLGVCKY  
 TVQDESHSEWVSCVRFSPNSSNP IIVSCGWDKLKVVWNLANCKLKTNHIGHTGYLNTVTVSPDGLSCASG  
 GKDGQAMLWDLNEGKHL YTLDDGGDIINALCFSPNRYWLC AATGPSIKIWDLEGKIIVDELKQEVISTSSK  
 AEPPQCTSLAWSADGQTLFAGYTDNLVVRVWQVTIGTR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_008143

**ORF Size:** 951 bp

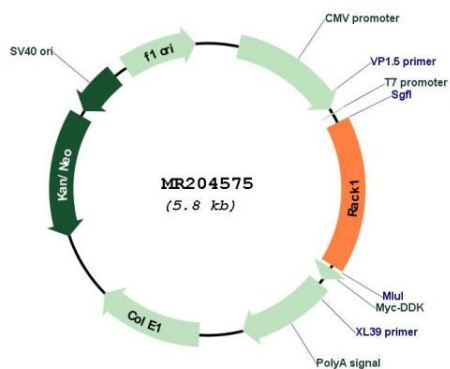
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_008143.1</a> , <a href="#">NM_008143.2</a> , <a href="#">NM_008143.3</a> , <a href="#">NP_032169.1</a>
<b>RefSeq Size:</b>	1255 bp
<b>RefSeq ORF:</b>	954 bp
<b>Locus ID:</b>	14694
<b>UniProt ID:</b>	<a href="#">P68040</a>
<b>Cytogenetics:</b>	11 B1.2
<b>MW:</b>	35.5 kDa
<b>Gene Summary:</b>	<p>Scaffolding protein involved in the recruitment, assembly and/or regulation of a variety of signaling molecules. Interacts with a wide variety of proteins and plays a role in many cellular processes. Component of the 40S ribosomal subunit involved in translational repression. Involved in the initiation of the ribosome quality control (RQC), a pathway that takes place when a ribosome has stalled during translation, by promoting ubiquitination of a subset of 40S ribosomal subunits (By similarity). Binds to and stabilizes activated protein kinase C (PKC), increasing PKC-mediated phosphorylation. May recruit activated PKC to the ribosome, leading to phosphorylation of EIF6. Inhibits the activity of SRC kinases including SRC, LCK and YES1. Inhibits cell growth by prolonging the G0/G1 phase of the cell cycle. Enhances phosphorylation of BMAL1 by PRKCA and inhibits transcriptional activity of the BMAL1-CLOCK heterodimer. Facilitates ligand-independent nuclear translocation of AR following PKC activation, represses AR transactivation activity and is required for phosphorylation of AR by SRC. Modulates IGF1R-dependent integrin signaling and promotes cell spreading and contact with the extracellular matrix. Involved in PKC-dependent translocation of ADAM12 to the cell membrane. Promotes the ubiquitination and proteasome-mediated degradation of proteins such as CLEC1B and HIF1A. Required for VANGL2 membrane localization, inhibits Wnt signaling, and regulates cellular polarization and oriented cell division during gastrulation. Required for PTK2/FAK1 phosphorylation and dephosphorylation. Regulates internalization of the muscarinic receptor CHRM2. Promotes apoptosis by increasing oligomerization of BAX and disrupting the interaction of BAX with the anti-apoptotic factor BCL2L. Inhibits TRPM6 channel activity. Regulates cell surface expression of some GPCRs such as TBXA2R. Plays a role in regulation of FLT1-mediated cell migration. Involved in the transport of ABCB4 from the Golgi to the apical bile canalicular membrane (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR204575