

## Product datasheet for **RC204874**

### **RSK1 p90 (RPS6KA1) (NM\_002953) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RSK1 p90 (RPS6KA1) (NM_002953) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RSK1 p90
Synonyms:	HU-1; MAPKAPK1; MAPKAPK1A; p90Rsk; RSK; RSK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC204874 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCGCTCGCCAGCTCAAGGAGCCCTGGCCGCTCATGGAGCTAGTGCCGCTGGACCCGGAGAATGGAC  
 AGACCTCAGGGGAAGAAGCTGGACTTCAGCCGTCCAAGGATGAGGGCGTCTCAAGGAGATCTCCATCAC  
 GCACCACGTCAAGGCTGGCTCTGAGAAGGCTGATCCATCCCATTTTCGAGCTCCTCAAGTTCTGGGCCAG  
 GGATCCTTTGGCAAAGTCTTCTGGTGCAGAAAGTCAACCCGCGTACAGTGGGCACCTGTATGCTATGA  
 AGGTGCTGAAGAAGGCAACGCTGAAAGTACGTACCCGCGTCCGGACCAAGATGGAGAGACATCTGGC  
 TGATGTAATCACCCATTCGTGGTGAAGCTGCACTATGCCTCCAGACCGAGGGCAAGCTCTATCTCATT  
 CTGGACTTCTGCGTGGTGGGACCTCTCACCCGCTCTCAAAGAGGTGATGTTACGGAGGAGGATG  
 TGAAGTTTACCTGGCCGAGCTGGCTCTGGCCGGATCACCTGCACAGCCTGGGTATCATTACAGAGA  
 CCTCAAGCCTGAGAACATCCTTCTGGATGAGGAGGGCCACATCAAACCTACTGACTTTGGCCTGAGCAA  
 GAGGCCATTGACCACGAGAAGAAGGCCTATTCTTCTGCGGGACAGTGGAGTACATGGCCCTGAGGTGCG  
 TCAACCGCCAGGGCCACTCCCATAGTGGCGACTGGTGGTCTATGGGGTGTGGATGTTTGGATGCTGAC  
 GGGCTCCCTGCCCTTCCAGGGGAAGGACCCGAAGGAGACCATGACACTGATTCTGAAGGCGAAGCTAGGC  
 ATGCCCCAGTTTCTGAGCACTGAAGCCAGAGCCTCTTGGCGGCCCTGTTCAAGCGGAATCTGCCAACC  
 GGCTCGGCTCCGGCCCTGATGGGCAGAGGAAATCAAGCGGCATGTCTTCTACTCCACCATTGACTGGAA  
 TAAGCTATACCGTCGTGAGATCAAGCCACCCTTCAAGCCAGCAGTGGCTCAGCCTGATGACACCTTCTAC  
 TTTGACACCGAGTTCACGTCCCACACCCAAGGATCCCCAGGCATCCCCCAGCGCTGGGGCCCATC  
 AGCTGTTCCGGGGCTTCAGCTTCTGGCCACCGCCTGATGGAAGACACGGCAAGCCTCGTGCCCGGTA  
 GGCACCCCTGCACTCGGTGGTACAGCAACTCCATGGGAAGAACCCTGGTTTTTAGTGACGGCTACGTGGTA  
 AAGGAGACAATTGGTGTGGGCTCCTACTCTGAGTGAAGCGCTGTGTCCACAAGGCCACCAACATGGAGT  
 ATGCTGTCAAGGTCATTGATAAGAGCAAGCGGGATCCTTCAGAAGAGATTGAGATTCTTCTGCGGTATGG  
 CCAGCACCCCAACATCATCACTCTGAAAGATGTGTATGATGATGGCAAACACGTGTACCTGGTGACAGAG  
 CTGATGCGGGGTGGGAGCTGCTGGACAAGATCCTGCGGCAGAAGTTCTTCTCAGAGCGGGAGGCCAGCT  
 TTGTCTGCACACCATTGGCAAACCTGTGGAGTATCTGCACTCACAGGGGTTGTGCACAGGGACCTGAA  
 GCCCAGCAACATCCTGTATGTGGACGAGTCCGGGAATCCCGAGTGCCTGCGCATCTGTGACTTTGGTTTT  
 GCCAAACAGCTGCGGGCTGAGAATGGGCTCCTCATGACACCTTGCTACACAGCCAACTTTGTGGCGCTG  
 AGGTGCTGAAGGCCAGGGCTACGATGAAGGCTGCGACATCTGGAGCCTGGGCATTCTGTGTACACCAT  
 GCTGGCAGGATATACTCCATTTGCCAACGGTCCAGTGACACACCAGAGGAAATCCTAACCCGGATCGGC  
 AGTGGGAAGTTTACCCTCAGTGGGGGAAATGGAAACACAGTTTCAGAGACAGCCAAGGACCTGGTGTCCA  
 AGATGCTACACGTGGATCCCCACCAGCGCCTCACAGCTAAGCAGGTTCTGCAGCATCCATGGGTACCCCA  
 GAAAGACAAGCTTCCCCAAGCCAGCTGTCCCACCAGGACCTACAGCTTGTGAAGGGAGCCATGGCTGCC  
 ACGTACTCCGCACTCAACAGCTCCAAGCCACCCCGAGCTGAAGCCATCGAGTCATCCATCCTGGCCC  
 AGCGGCGAGTGAGGAAGTTGCCATCCACCACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC204874 protein sequence  
Red=Cloning site Green=Tags(s)

MPLAQLKEPWPLMELVPLDPENGQTSGEEAGLQPSKDEGLKEISITHHVKAGSEKADPSHFELLKVLGQ  
 GSFQKVFVLRKVRTRPDSGHLIYAMKVLKKATLKVDRVRTKMERDILADVNHPFVVKLHYAFQTEGKLYLI  
 LDFLRGGDLFTRLKVEVMFTEEDVKFYLAELALGLDHLHSLGIIYRDLKPENILLDEEGHIKLTDFGLSK  
 EADIDHEKKAYSFCGTVEYMAPEVVNRQGHSHSADWWSYGVLMFEMLTGSLPFQKDRKETMTLILKAKLG  
 MPQFLSTEAQSLRLALFKRNPANRLGSGPDGAEEIKRHVFYSTIDWNKLYRREIKPPFKPAVAQPDFTFY  
 FDFTEFTSRTPKDSPGIPPSAGAHQLFRGFSFVATGLMEDDGKPRAPQAPLHSHVQQLHGKNLVFSDGYVV  
 KETIGVGSYSECKRCVHKATNMEYAVKVIDKSKRDPSEEIEILLRYGQHPNIITLKDVIYDDGKHVYLVTE  
 LMRGGELLDKILRQKFFSEREASFVLTIGKTVEYLHSQGVVHRDLKPSNILYVDESGNPELCRIDCFGF  
 AKQLRAENGLMTPCYTANFVAPEVLKRQGYDEGCDIWSLGILLYTMLAGYTPFANGSPDTPPEEILTRIG  
 SGKFTLSGGNWTVSETAKDLVSKMLHVDPHQRLTAKQVLQHPWVTQKDKLPQSQLSHQDLQLVKGAMAA  
 TYSALNSSKPTPQLKPIESSILAQRVRKLPSTTL

TRTRPLEQKLISEEDLANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6202\\_g04.zip](https://cdn.origene.com/chromatograms/mk6202_g04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_002953

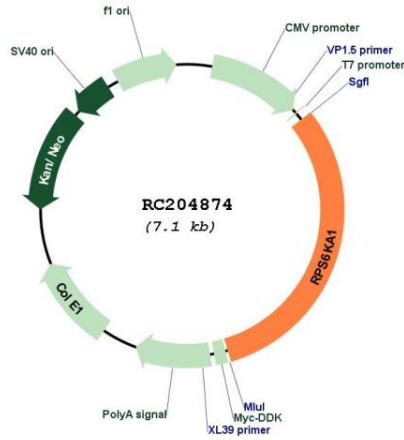
**ORF Size:** 2205 bp

**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](#)

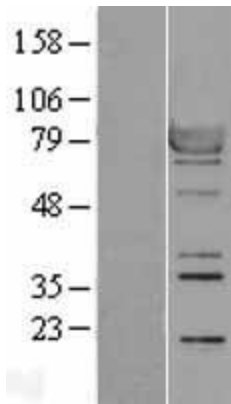
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002953.2</a>
<b>RefSeq Size:</b>	3199 bp
<b>RefSeq ORF:</b>	2208 bp
<b>Locus ID:</b>	6195
<b>UniProt ID:</b>	<a href="#">Q15418</a>
<b>Cytogenetics:</b>	1p36.11
<b>Domains:</b>	pkinase, S_TK_X, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Long-term potentiation, MAPK signaling pathway, mTOR signaling pathway, Neurotrophin signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation
<b>MW:</b>	82.7 kDa
<b>Gene Summary:</b>	This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 nonidentical kinase catalytic domains and phosphorylates various substrates, including members of the mitogen-activated kinase (MAPK) signalling pathway. The activity of this protein has been implicated in controlling cell growth and differentiation. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]

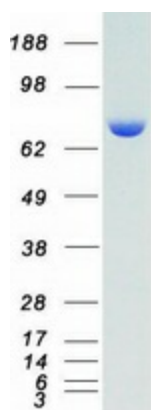
Product images:



Circular map for RC204874



Western blot validation of overexpression lysate (Cat# [LY401035]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204874 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RPS6KA1 protein (Cat# [TP304874]). The protein was produced from HEK293T cells transfected with RPS6KA1 cDNA clone (Cat# RC204874) using MegaTran 2.0 (Cat# [TT210002]).