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Product datasheet for MG210359

Rps6ka1 (BC094470) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rps6ka1 (BC094470) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rps6ka1
Synonyms:	Rsk1, rsk, p90rsk
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG210359 representing BC094470
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGCTCGCCCAGCTCAAGGAGCCCTGGCCGCTCATGGAGCTGGTGCCGCTGGACCCGGAGAATGGCC
AGACTTCAGGGGAAGAAGCTGGACTTCAGCCATCCAAGGATGAGGCCATCCTCAAGGAGATCTCCATCAC
ACACCACGTCAAGGCTGGCTCTGAGAAGGCCGATCCATCCCAGTTTGAGCTCCTCAAGGTTCTGGGCCAA
GGATCCTTTGGCAAAGTCTTCCTGGTACGCAAGGTCACCCGGCCTGACAGTGGGCACTTGTATGCCATGA
AAGTATTAAAGAAGGCCACGCTGAAAGTGCGTGACCGTGTTCGGACCAAGATGGAGAGAGACATCCTCGC
TGACGTGAACCACCCGTTCGTGGTGAAGCTGCATTATGCCTTCCAGACCGAGGGCAAGCTCTATCTTATT
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TGAAGTTTTACCTGGCTGAGCTGGCACTGGGCCTGGACCACCTGCACAGCTTGGGCATTATTTACAGAGA
CCTCAAGCCTGAGAATATCCTTTTGGATGAGGAGGGCCACATCAAACTCACTGACTTTGGCCTGAGCAAG
GAGGCCATAGACCATGAGAAGAAGGCTTACTCCTTCTGCGGGACAGTGGAGTACATGGCGCCCGAGGTTG
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TAAGCTCTACCGGCGTGAGATCAAGCCCCCTTTCAAGCCGGCTGTGGCCCAGCCCGACGACACCTTCTAC
TTTGATACCGAGTTCACGTCACGCACACCCAGGGATTCGCCAGGCATCCCCCCCAGTGCTGGTGCCCATC
AGCTGTTCCGGGGCTTCAGCTTCGTGGCCACTGGTCTGATGGAGGACGACGGCAAGCCTCGGACCACTCA
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GAAAGACAAGCTTCCCCAGAGCCAGTTGTCCCACCAAGACCTGCAGCTCGTGAAGGGAGCCATGGCAGCT
ACATACTCTGCTCTCAATAGCTCCAAACCCACCCCTCAGCTCAAGCCAATTGAGTCGTCTATCCTGGCCC
AGCGGCGGGTGAGGAAGCTGCCATCCACCACCCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

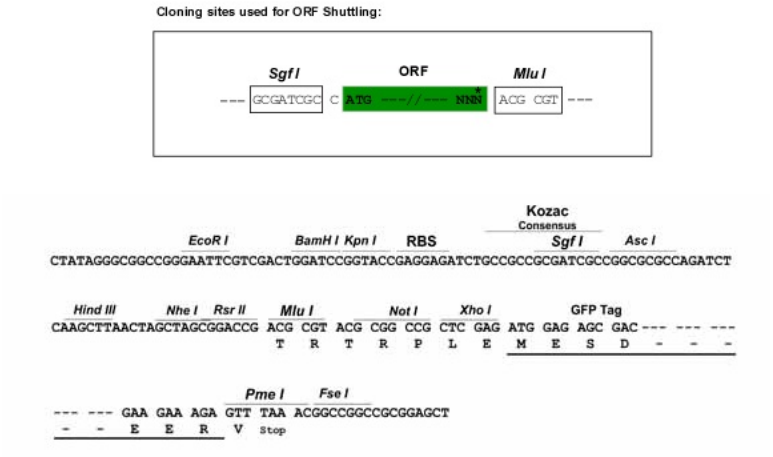
>MG210359 representing BC094470
Red=Cloning site Green=Tags(s)

MPLAQLKEPWPLMELVPLDPENGQTSGEEAGLQPSKDEAILKEISITHHVKAGSEKADPSQFELLKVLGQ
GSFGKVFLVRKVTRPDSGHLYAMKVLKKATLKVRDRVRTKMERDILADVNHPFVVKLHYAFQTEGKLYLI
LDFLRGGDLFTRLSKEVMFTEEDVKFYLAELALGLDHLHSLGIIYRDLKPENILLDEEGHIKLTDFGLSK
EAIDHEKKAYSFCGTVEYMAPEVVNRQGHTHSADWWSYGVLMFEMLTGSLPFQGKDRKETMTLILKAKLG
MPQFLSTEAQSLLRALFKRNPANRLGSGPDGAEEIKRHIFYSTIDWNKLYRREIKPPFKPAVAQPDDTFY
FDTEFTSRTPRDSPGIPPSAGAHQLFRGFSFVATGLMEDDGKPRTTQAPLHSVVQQLHGKNLVFSDGYVV
KETIGVGSYSVCKRCVHKATNMEYAVKVIDKSKRDPSEEIEILLRYGQHPNIITLKDVYDDGKHVYLVTE
LMRGGELLDKILRQKFFSEREASFVLHTISKTVEYLHSQGVVHRDLKPSNILYVDESGNPECLRICDFGF
AKQLRAENGLLMTPCYTANFVAPEVLKRQGYDEGCDIWSLGILLYTMLAGYTPFANGPSDTPEEILTRIG
SGKFTLSGGNWNTVSETAKDLVSKMLHVDPHQRLTAKQVLQHPWITQKDKLPQSQLSHQDLQLVKGAMAA
TYSALNSSKPTPQLKPIESSILAQRRVRKLPSTTL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC094470

ORF Size: 2205 bp

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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:	BC094470.1
RefSeq Size:	3097 bp
RefSeq ORF:	2207 bp
Locus ID:	20111
Cytogenetics:	4 D2.3

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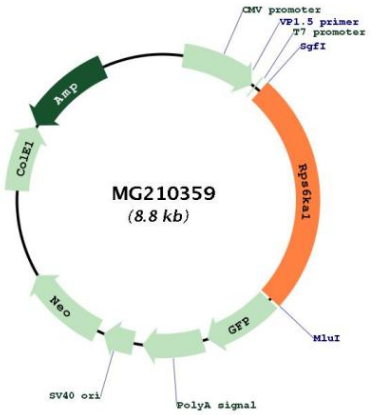
Gene Summary: Serine/threonine-protein kinase that acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77, regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro-apoptotic function of BAD and DAPK1. In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes. In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP. Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity. Phosphorylates RPS6 in response to serum or EGF via an mTOR-independent mechanism and promotes translation initiation by facilitating assembly of the pre-initiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent translation. Is involved in the mTOR nutrient-sensing pathway by directly phosphorylating TSC2 at 'Ser-1798', which potently inhibits TSC2 ability to suppress mTOR signaling, and mediates phosphorylation of RPTOR, which regulates mTORC1 activity and may promote rapamycin-sensitive signaling independently of the PI3K/AKT pathway. Mediates cell survival by phosphorylating the pro-apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function. Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4). Mediates induction of hepatocyte prolifration by TGFA through phosphorylation of CEBPB (PubMed:10635333). Is involved in cell cycle regulation by phosphorylating the CDK inhibitor CDKN1B, which promotes CDKN1B association with 14-3-3 proteins and prevents its translocation to the nucleus and inhibition of G1 progression (By similarity). Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG210359

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