

## Product datasheet for **RG213645**

### **RPS6KA3 (NM\_004586) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RPS6KA3 (NM_004586) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RPS6KA3
Synonyms:	CLS; HU-3; ISPK-1; MAPKAPK1B; MRX19; p90-RSK2; pp90RSK2; RSK; RSK2; S6K-alpha3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG213645 representing NM\_004586  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCCTGGCGCAGCTGGCGGACCCGTGGCAGAAGATGGCTGTGGAGAGCCCGTCCGACAGCGCTGAGA  
 ATGGACAGCAAATTATGGATGAACCTATGGGAGAGGAGGAGATTAACCCACAAACTGAAGAAGTCAGTAT  
 CAAAGAAATTGCAATCACACATCATGTAAGGAAGGACATGAAAAGGCAGATCCTTCCCAGTTTGAACCT  
 TAAAAAGTATTAGGGCAGGGATCATTGGAAAAGTTTCTTAGTTAAAAAATCTCAGGCTCTGATGCTA  
 GGCAGCTTTATGCCATGAAGGTATTGAAGAAGGCCACACTGAAAGTTCGAGACCGAGTTCGGACAAAAAT  
 GGAACGTGATATCTTGGTAGAGTTAATCATCCTTTTATTGTCAAGTTCATTATGCTTTTCAAAGTAA  
 GGAAGTTGTATCTTATTTGGATTTTCTCAGGGGAGGAGATTTGTTTACACGCTTATCCAAAGAGGTGA  
 TGTTACAGAAGAAGATGCAAAATCTACTTGGCTGAACCTGCATTGCTTTAGACCATCTACATAGCCT  
 GGAATAATTTATAGAGACTTAAAACCAGAAAATATACTTCTTGATGAAGAAGGTCACATCAAGTTAACA  
 GATTTTCGGCCTAAGTAAAGAGTCTATTGACCATGAAAAGAAGGCATATTCTTTTTGTGAACTGTGGAGT  
 ATATGGCTCCAGAAGTAGTTAATCGTCGAGGTCATACTCAGAGTCTGACTGGTGGTCTTTTGGTGTGT  
 AATGTTTGAATGCTTACTGGTACACTCCCTTTCCAAGGAAAAGATCGAAAAGAAAACAATGACTATGATT  
 CTTAAAGCCAACTTGAATGCCACAGTTTTTGGTCTGAAAGCGCAGAGTCTTTTACGAATGCTTTTCA  
 AGCGAAATCCTGCAAACAGATTAGGTGCAGGACCAGATGGAGTTGAAGAAATTAAGACATTCATTTTT  
 CTCAACGATAGACTGGAATAAAGTATAGAAGAGAAATTCATCCGCCATTTAAACCTGCAACGGGCAGG  
 CCTGAAGATACATTCTATTTGATCCTGAGTTTACTGCAAAAACCTCCAAAGATTCACCTGGCATTCCAC  
 CTAGTGCTAATGCACATCAGCTTTTTCGGGGTTTGTGTTTGTGCTATTACCTCAGATGATGAAAGCCA  
 AGCTATGCAGACAGTTGGTGTACATTCAATTTGTTTGTGCTATTACCTCAGATGATGAAAGCCA  
 GGATATGAAGTAAAGAAGATATTGGAGTTGGCTCCTACTCTGTTTGAAGAGATGTATACATAAAGCTA  
 CAAACATGGAGTTTGCAGTGAAGATTATTGATAAAGCAAGAGAGACCCAACAGAAGAAATTGAAATTCT  
 TCTTCGTTATGGACAGCATCCAAACATTACACTCTAAAGGATGTATATGATGATGGAAAGTATGTGTAT  
 GTAGTAACAGAACTTATGAAAGGAGGTGAATTGCTGGATAAAATCTTAGACAAAATTTTTCTCTGAAC  
 GAGAGGCCAGTGTCTGCTTCACTATAACTAAAACCGTTGAATATCTCACGCACAAGGGGTGGTTCA  
 TAGAGACTTGAACCTAGCAACATCTTTATGTGGATGAATCTGGTAATCCGGAATCTATTCGAATTTGT  
 GATTTTGGCTTTGCAAAACAGCTGAGAGCGGAAAATGGTCTTCTCATGACTCCTTGTACTGCAAAAT  
 TTGTTGCCACCAGAGGTTTTAAAAAGACAAGGCTATGATGCTGCTTGTGATATATGGAGTCTTGGTGTCT  
 ACTCTATAACAATGCTTACCGTTACACTCCATTTGCAAAATGGTCTGATGATACACCAGAGGAAATATTG  
 GCACGAATAGGTAGCGGAAAATCTCACTCAGTGGTGGTACTGGAATCTGTTTCAGACACAGCAAAGG  
 ACCTGGTGTCAAAGATGCTTCATGTAGACCCTCATCAGAGACTGACTGCTGCTCTTGTGCTCAGACATCC  
 TTGGATCGTCCACTGGGACCAACTGCCACAATACCAACTAAACAGACAGGATGCACCACATCTAGTAAAG  
 GGTGCCATGGCAGCTACATATTCTGCTTTGAACCGTAATCAGTCACCAGTTTTGGAACCAGTAGGCCGCT  
 CTACTCTTGCTCAGCGGAGAGGTATTAATAAATCACCTCAACAGCCCTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG213645 representing NM\_004586  
Red=Cloning site Green=Tags(s)

MPLAQLADPWQKMAVESPSDSAENGQQIMDEPMGEEEEINPQTEEVSIKEIAITHHVKEGHEKADPSQFEL  
 LKVLGQGSFGKVFLVKKISGSDARQLYAMKVLKKATLKVRDRVRTKMERDILVEVNHFFIVKLHYAFQTE  
 GKLYLILDFLRGGDLFTRL SKEVMFTEEDVKFYLAELALALDHLHSLGIIYRDLKPENILLDEEGHIKLT  
 DFGLSKESIDHEKKAYSFCGTVEYMAPEVVNRRGHTQSADWWSFGVLMFEMLTGTLPFQGKDRKETMTMI  
 LKAKLGMPQFLSPEAQSLRLMFKRNPANRLGAGPDGVVEIKRHSFFSTIDWNKLYRREIHPPFKPATGR  
 PEDTFYDFPEFTAKTPKDSPIPPSANAHQLFRGFSVAITSDDESQAMQTVGVHSIVQQLHRNSIQFTD  
 GYEVKEDI GVGYSYVCKRCIHKATNMEFAVKIIDKSKRDPTEEIEILLRYGQHPNIITLKD VYDDGKYVY  
 VVTELMKGGELLDKILRQKFFSEREASAVLFTITKTVEYLHAQGVVHRDLKPSNILYVDESGNPESIRIC  
 DFGFAKQLRAENGLLMTPCYTANFVAPEVLKRQGYDAACDIWSLVLLYMLTGYTPFANGPDDTPEEIL  
 ARIGSGKFSLSGGYWNSVSDTAKDLVSKMLHVDPHQRLTAALVLRHPWIVHWDQLPQYQLNRQDAPHLVK  
 GAMAATYSALNRNQSPVLEPVGRSTLAQRRGIKKITSTAL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004586

**ORF Size:** 2220 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).

**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\\_004586.3](#)

**RefSeq Size:** 7723 bp

**RefSeq ORF:** 2223 bp

**Locus ID:** 6197

**UniProt ID:** [P51812](#)

**Cytogenetics:** Xp22.12

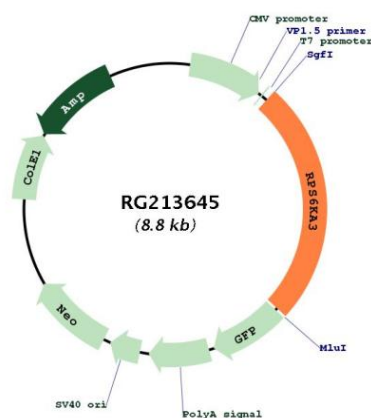
**Domains:** pkinase, S\_TK\_X, TyrKc, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Long-term potentiation, MAPK signaling pathway, mTOR signaling pathway, Neurotrophin signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation

**Gene Summary:** This gene encodes a member of the RSK (ribosomal S6 kinase) family of serine/threonine kinases. This kinase contains 2 non-identical 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. Mutations in this gene have been associated with Coffin-Lowry syndrome (CLS). [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG213645