

## Product datasheet for **RG232878**

### **S6K1 (RPS6KB1) (NM\_001272042) Human Tagged ORF Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | S6K1 (RPS6KB1) (NM_001272042) Human Tagged ORF Clone                              |
| Tag:                      | TurboGFP  |
| Symbol:                   | RPS6KB1   |
| Synonyms:                 | p70 S6KA; p70(S6K)-alpha; p70-alpha; p70-S6K; PS6K; S6K; S6K-beta-1; S6K1; STK14A |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |



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**ORF Nucleotide Sequence:**

>RG232878 representing NM\_001272042  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCGCAGCAAGGAGCGGGACGGCTTTTACCCAGCCCGGACTTCCGAGACAGGGAAGCTGAGGACA  
 TGGCAGGAGTGTTTGACATAGACCTGGACCAGCCAGAGGACGCGGCTCTGAGGATGAGCTGGAGGAGGG  
 GGGTCAGTTAAATGAAAGCATGGACCATGGGGAGTTGGACCATATGAACTTGGCATGGAACATTGTGAG  
 AAATTTGAAATCTCAGAACTAGTGTGAACAGAGGGCCAGAAAAAATCAGACCAGAATGTTTTGAGCTAC  
 TTCGGGACTTGGTAAAGGGGCTATGGAAGGCAATGATAGTAAGAAATGCTAAAGATACAGCTCATA  
 AAAAGCAGAACGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATCGTGGATTTAATTTATGCCTTTT  
 ACTGGTGGAAAACCTACCTCATCTTGGATATCTCAGTGGAGGAGAATTTTATGCAGTTAGAAAGAG  
 AGGGAATATTTATGGAAGACACTGCCTGCTTTTACTTGGCAGAAATCTCCATGGCTTTGGGGCATTTACA  
 TCAAAAGGGGATCATCTACAGAGACCTGAAGCCGAGAATATCATGCTTAAATACCAAGGTCATGTGAAA  
 CTAACAGACTTTGGACTATGCAAAGAATCTATTATGATGGAACAGTCACACACACATTTTGGGAACAA  
 TAGAATACATGGCCCCTGAAATCTTGATGAGAAGTGGCCACAATCGTGTGTGGATTGGTGGAGTTTGGG  
 AGCATTATGTATGACATGCTGACTGGAGCACCCCATCACTGGGGAGAATAGAAAAGAAAACAATTGAC  
 AAAATCCTCAAATGTAAGTCAATTTGCCTCCCTACCTCACACAAGAAGCCAGAGATCTGCTTAAAAAGC  
 TGCTGAAAAGAAATGCTGCTTCTCGTCTGGGAGCTGGTCTGGGGACGCTGGAGAAGTCAAGCTCATCC  
 ATCTTTAGACACATTAAGTGGGAAGAACTTCTGGCTCGAAAGGTGGAGCCCCCTTTAACCTCTGTTG  
 CAATCTGAAGAGGATGTAAGTCAGTTTATTCCAAGTTTACACGTCAGACACCTGTCGACAGCCCAGATG  
 ACTCAACTCTCAGTGAAGTGCATCAGTCTTTCTGGGTTTTACATATGTGGCTCCATCTGTACTTGA  
 AAGTGTGAAAGAAAAGTTTTCTTTGAACCAAAAATCCGATCACCTCGAAGATTTATTGGCAGCCCACGA  
 ACACCTGTGAGCCAGTCAAATTTCTCTGGGATTTCTGGGAAGAGGTGCTTCGCCAGCACAGCAA  
 ATCCTCAGACACCTGTGGAATACCAATGGAAACAAGTGGCATAGAGCAGATGGATGTGACAATGAGTGG  
 GGAAGCATCGGCACCACTTCCAATACGACAGCCGAACTCTGGGCCATACAAAAACAAGCTTTTCCCATG  
 ATCTCAAACGGCCAGAGCACCTGCGTATGAATCTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG232878 representing NM\_001272042  
 Red=Cloning site Green=Tags(s)

MRRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDPEDAGSEDELEEGQLNESMDHGGVGPYELGMEHCE  
 KFEISETSVNRGPEKIRPECFELLRLVLGKGGYKAMIVRNAKDTAHTKAERNILEEVKHPFIVDLIYAFQ  
 TGGKLYLILEYLSGGELFMQLEREGIFMEDTACFYLAEISMALGHLHQKGIYRDLKPENIMLNHQGHVK  
 LTDFGLCKESIHDGTVTHTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGENRKKTID  
 KILKCKLNLPPYLTQEARDLLKLLKRNAASRLGAGPGDAGEVQAHPPFRHINWEELLARKVEPPFKPLL  
 QSEEDVSQFDSKFTRQTPVDSRDDSTLSEANQVFLGFTYVAPSVLESVKEKFSFEPKIRSPRRFIGSPR  
 TPVSPVKFSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVTMSGEASAPLPIRQPNSSGPKYKQAFPM  
 ISKRPEHLRMNL

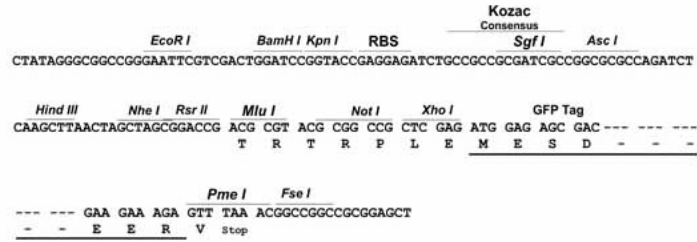
**TRTRPLE** - GFP Tag - V

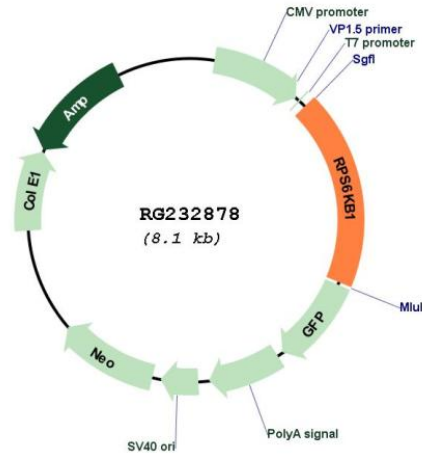
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_001272042

**ORF Size:** 1506 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_001272042.1</a> , <a href="#">NP_001258971.1</a>   |
| <b>RefSeq Size:</b>           | 5299 bp   |
| <b>RefSeq ORF:</b>            | 1509 bp   |
| <b>Locus ID:</b>              | 6198  |
| <b>UniProt ID:</b>            | <a href="#">P23443</a>  |
| <b>Cytogenetics:</b>          | 17q23.1   |
| <b>Protein Families:</b>      | Druggable Genome, Protein Kinase  |
| <b>Protein Pathways:</b>      | Acute myeloid leukemia, ErbB signaling pathway, Fc gamma R-mediated phagocytosis, Insulin signaling pathway, mTOR signaling pathway, TGF-beta signaling pathway   |
| <b>Gene Summary:</b>          | <p>This gene encodes a member of the ribosomal S6 kinase family of serine/threonine kinases. The encoded protein responds to mTOR (mammalian target of rapamycin) signaling to promote protein synthesis, cell growth, and cell proliferation. Activity of this gene has been associated with human cancer. Alternatively spliced transcript variants have been observed. The use of alternative translation start sites results in isoforms with longer or shorter N-termini which may differ in their subcellular localizations. There are two pseudogenes for this gene on chromosome 17. [provided by RefSeq, Jan 2013]</p> |