

## Product datasheet for **RG226086**

### PAK6 (NM\_001128629) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PAK6 (NM_001128629) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BUB1B-PAK6
Synonyms:	PAK-5; PAK-6; PAK5; PAK6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RG226086 representing NM\_001128629  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTCCGCAAGAAAAAGAAGAAACGCCCTGAGATCTCAGCGCCACAGAAGCTCCAGCACCGTGTCCACA  
 CCTCCTTCGACCCCAAAGAAGGCAAGTTTGTGGGCCTCCCCACAATGGCAGAACATCCTGGACACT  
 GCGGGCCCCAAAGCCCGTGGTGGACCTTCGCGAATCACACGGGTGCAGCTCCAGCCATGAAGACAGTG  
 GTGCGGGGCAGCGCATGCCTGTGGATGGCTACATCTCGGGGCTGCTCAACGACATCCAGAAGTTGTGAG  
 TCATCAGCTCCAACACCTGCGTGGCCGACGCCACCAGCCGGCGGGGCACAGTCCCTGGGGCTGCT  
 GGGGGATGAGCACTGGGCCACCGACCCAGACATGTACCTCCAGAGCCCCAGTCTGAGCGCACTGACCCC  
 CACGGCTCTACCTCAGTGAACGGGGCACACCAGCAGGCCACAAGCAGATGCCGTGGCCGAGCCAC  
 AGAGCCACGGGTCTGCCAATGGGCTGGCTGCAAAGGCACAGTCCCTGGGCCCGCCGAGTTTCAGGG  
 TGCTCGCAGCGTGTCTGCAGTGGGTGCTGCCTGCAGAGCTCCCACCAGGAGCTCGCCCCCAGC  
 GGCACCAATAGGCATGGAATGAAGGCTGCCAAGCATGGCTCTGAGGAGGCCCGGCCACAGTCTGCCTGG  
 TGGGCTCAGCCACAGGCAGGCCAGGTGGGGAAGGCAGCCCTAGCCCTAAGACCCGGGAGAGCAGCCTGAA  
 GCGCAGGCTATTCGAAGCATGTTCTGTCCACTGCTGCCACAGCCCCTCCAAGCAGCAGCAAGCCAGGC  
 CCTCCACCACAGAGCAAGCCCAACTCCTCTTCCGACCGCCGAGAAAGACAACCCCAAGCCTGGTGG  
 CCAAGGCCAGTCTTGGCCCTCGGACCAGCCGGTGGGGACCTTCAGCCCTCTGACCACTTCGGATACCAG  
 CAGCCCCCAGAAGTCCCTCCGCACAGCCCCGGCCACAGGCCAGCTTCCAGGCCGTTTCCCCAGCGGGA  
 TCCCCCGCACCTGGCAGGCCAGATCAGCACCAGCAACCTGTACCTGCCCAGGACCCACGGTTGCCA  
 AGGGTCCCTGGCTGGTGGACACAGGTGTTGTGACACATGAGCAGTTCAAGGCTGCGTCAGGATGGT  
 GGTGGACCAGGTGACCCCGGCTGCTGCTGGACAGTACGTGAAGATTGGCGAGGCTCCACCGGCATC  
 GTCTGTTGGCCCGGAGAAGCACTCGGGCCGCCAGGTGGCCGTCAAGATGATGGACCTCAGGAAGCAGC  
 AGCGCAGGGAGCTGCTCTCAACGAGGTGGTATCATGCGGGACTACCAGCACTTCAACGTGGTGGAGAT  
 GTACAAGAGCTACCTGGTGGCGAGGAGCTGTGGGTGCTCATGGAGTTCTGCAGGGAGGAGCCCTCACA  
 GACATCGTCTCCAAGTCAGGCTGAATGAGGAGCAGATTGCCACTGTGTGTGAGGCTGTGCTGCAGGCC  
 TGGCTACCTGCATGCTCAGGTGTCATCCACCGGACATCAAGAGTGACTCCATCCTGCTGACCCTCGA  
 TGGCAGGGTGAAGCTCTCGGACTTCGGATTCTGTGCTCAGATCAGCAAAGACGTCCCTAAGAGGAAGTCC  
 CTGGTGGGAACCCCTACTGGATGGCTCCTGAAGTGATCTCCAGGTCTTTGTATGCCACTGAGGTGGATA  
 TCTGGTCTCTGGCATCATGGTATTGAGATGGTAGATGGGGAGCCACCTACTTCAAGTACTCCCCAGT  
 GCAAGCCATGAAGAGGCTCCGGGACAGCCCCCACCAGCTGAAAACTCTCACAAGGTCTCCCCAGTG  
 CTGCGAGACTTCTGGAGCGGATGCTGGTGCAGGACCCCAAGAGAGAGCCACAGCCAGGAGCTCCTAG  
 ACCACCCCTTCTGTGCAGACAGGGCTACCTGAGTGCCTGGTGGCCCTGATCCAGCTCTACCGAAAGCA  
 GACCTCCACCTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG226086 representing NM\_001128629  
 Red=Cloning site Green=Tags(s)

MFRKKKKRPEISAPQNFQHRVHTSFDPKGKGFVGLPPQWQNILDTLRRPKPVVDPISRITRVQLQPMKTV  
 VRGSAMPVDGYISGLLNDIQKLSVISSNTLRGRSPTSRRAQSLGLLGDEHWATDPDMLYQSPQSERTDP  
 HGLYLSCNGGTPAGHKQMPWPEPQSPRVLPNGLAAKAQSLGPAEFQASQRCLQLGACLQSSPPGASPTT  
 GTNRHGMKAAKHGSEEARPQSCLVGSATGRPGGEGSPSPKTRESSLKRRLFRSMFLSTAATAPPSSSKPG  
 PPPQSKPNSSFRPPQKDNPPSLVAKAQLSPDQPVGTF SPLTTSSTSSPQKSLRTAPATGQLPGRSSPAG  
 SPRTWHAQISTSNLYLPQDPTVAKGALAGEDTGVVTHEQFKAALRMVVDQGDPRLLLLDSYVKIGEGSTGI  
 VCLAREKHSRQVAVKMDLRKQQRRELLFNEVVIMRDYQHFNVVEMYKSYLVGEELWVLMFLQGGALT  
 DIVSQVRLNEEQIATVCEAVLQALAYLHAQGVIIHRDIKSDSILL TLDGRVKLSDFGFCAQISKDVPKRKS  
 LVGTPYWMPEVISRSLYATEVDIWSLIMVIMVDGEPYPYSDSPVQAMKRLRDSPPPKLKNSHKVSVP  
 LRDFLERMLVRDPQERATAQELLDHPFLLQTGLPECLVPLIQLYRKQTSTC

TRTRPLE - GFP Tag - V

**Restriction Sites:**

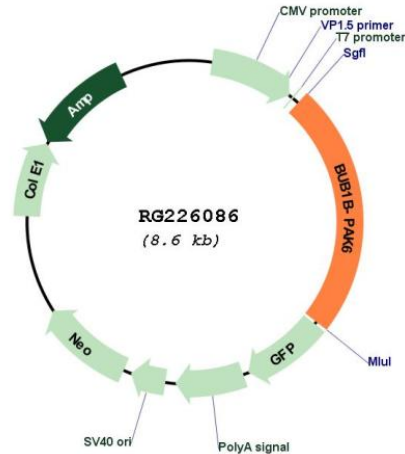
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_001128629

ORF Size: 2043 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\\_001128629.3](#)

RefSeq Size: 3856 bp

RefSeq ORF: 2046 bp

Locus ID: 106821730

UniProt ID: [Q9NQU5](#)

Cytogenetics: 15q15.1

**Gene Summary:** This gene represents readthrough transcription between the genes BUB1B (mitotic checkpoint serine/threonine-protein kinase BUB1 beta) and PAK6 (serine/threonine-protein kinase PAK 6). The protein encoded by the readthrough transcripts is the same as the product of the downstream gene (PAK6). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]