

## Product datasheet for **MG218274**

### **Pak6 (NM\_001033254) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pak6 (NM_001033254) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pak6
Synonyms:	4732456M09
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG218274 representing NM\_001033254  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTTCCGCAAGAAAAGAAGAAACGTCCTGAGATATCAGCCCCGAGAAGCTCCAGCATCGTGTCCACA  
 CCTCCTTTGACCCCAAGGAAGGCAAGTTTGTGGGTCTGCCCCACAATGGCAGAACATTCTGGATACTCT  
 GAGGCGGCCCAAGCCTGTGGTGGATCCTTCTCGAATCACACGGGTGCAGTTGCAGCCCATGAAGACAGTC  
 GTACGGGGCAGCTCAGTCCACGGAGGGCTACATCTCGGGGCTGCTCAACGACATTAGAAGTTGTGAG  
 TTATCAGTCCAAACACCTGCGTGGACGACGCCACCAGCCGGCGGGCAGTCCCTGGGGCTGCT  
 GGGAGATGATCAGTGGGCTGCTGACCCGATATGTACCTCAAAGCCCCAGTCGGAGCACACTGATCCC  
 CATGGCCTCTACCTCAGTGAATGGGGGCACACCAGCAGGTACAGGCAGGTGCCCTGGCCAGAACCAC  
 AGAGCCCCGAGGCCCTGCCAATGGGATGGCTGCCAAGGCGCAGTCACTGGGCCCTGCTGAGTTCAGGG  
 TGCTCACAACGCTGCCTGCAGCAGCTGGGTGCCTGCCTGCAGAGTTCACCCCGGTACCTCACTCCCT  
 ATGGCCACAGGGAGGCGTGGGGTGAAGGTTGCCAAGCATAGCTCCGAAGAGGCCCGCCACAGTCCCTGCC  
 TGGTGGGCTCGGCCATTGGCAGGCCAGGTGGAGAAGGCAGCCCTAGCCCTAAGAACCAGGAAGCAGCCT  
 CAAGCACCGGCTCTTCGAAGCATGTTCTGTCCACTCCTGCCACAGGCGCGCAAGCAGCAGCAAGCCG  
 GTCCCTCTGCCGAGAACAAGCCCAATTCTGCTTTCGACCACCACAAAAAGACTCCTCTTCAAACCTGG  
 TAGCCAAGGCCAGTCTTGCCCTCAGAGCAGCCCATGGGGACCTTCAGTCTCTGACCCTCAGATAC  
 CAGCAGCCCCAGAAGTCCCTCCGCACAGTTCAGCCGCTGGTCCACTCCAGGCCGGTCTTCTCCAGCA  
 GGCTCCCCCGTACCCGGCATGCTCAGATCAGCACCAGCAATCTACCTGCCCCAGGACCCACAGTGG  
 CCAAGGGGGCCCTGGGTGGCGAAGACACGGGCATTGTGACCCATGAACAGTTCAAGGCTGCGCTCAGGAT  
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 ACAGACATCATCTCCAAGTCAGACTGAATGAGGAGCAGATTGCCACTGTGTGTAAGCTGTGCTCAGG  
 CCTTGGCTTACCTGCACGCCAGGGTGCATCCACCGAGATATCAAGAGTGATTCCATCCTGCTGACCT  
 TGATGGCAGGGTGAAGCTCTCAGACTTTGGTTCTGTGCTCAGATCAGCAAAGATGTTCCAAGAGAAAG  
 TCCCTGGTAGGAATCCATACTGGATGGCTCCTGAAGTATCTCCAGATCCCTGTACGCTACTGAGGTGG  
 ATATCTGGTCTCTGGGCATCATGGTATTGAGATGGTGGATGGAGAACCCCTACTTCAGTGACTCCCC  
 AGTGCAAGCCATGAAGAGGCTGCGGGACAGCGCCCAAGCTAAAGAAGTCTTACAAGTCTCTCCA  
 GTGCTGCGAGACTTCTGGATCGGATGCTGGTACGGGAACCCCAAGAGCGAGCCACGGCCAGGAGCTCC  
 TGGATACCCGTTTCTGCTGCAGACGGGGCTGCCTGAGTGTCTGGTGCCTCTGATACAGCTCTACCGCAA  
 GCAGACCTCCACCTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG218274 representing NM\_001033254  
 Red=Cloning site Green=Tags(s)

MFRKKKKRPEISAPQNFQHRVHTSFDPKKEGKVFGLPPQWQNILDTLRRPKPVVDPISRITRVQLQPMKTV  
 VRGSSVPTTEGYISGLLNDIQKLSVISSNTLRGRSPTSRRAQSLGLLGDDQWAADPDMYLQSPQSEHTDP  
 HGLYLSCNGGTPAGHRQVPWPEPQSPQALPNGMAAKAQLGPAEFQASQRCQLQLGACLQSSPPGTSPLP  
 MATGRRGVKVAKHSSEEARPQSCLVGSAGRPGGEGSPSPKNQESSLKHRLFRSMFLSTPATGAASSSKP  
 VPLPQNKPNFAFRPPQKDSNNLVAKAQLPSEQPMGTF SPLTTSDTSSPQKSLRTVPAAGPLPGRSSPA  
 GSPRTRHAQISTSNLYLPQDPTVAKGALGGEDTGIIVTHEQKAALRMVVDQGDPRLLLDYSYKIGEGSTG  
 IVCLAREKHSGRQVAVKMMDLRKQORRELLFNEVVIMRDYQHLNVVEMYKSYLVGEELWVLMFLLQGGAL  
 TDIIISQVRLNEEQIATVCEAVLQALAYLHAQGVHRDIKSDSILLTLDGRVKLSDGFCAQISKDVPKRK  
 SLVGTPYWMapevisrslYATEVDIWSLGIEMVVDGEPYPYFDSPVQAMKRLRDSAPPKLNKSYKVP  
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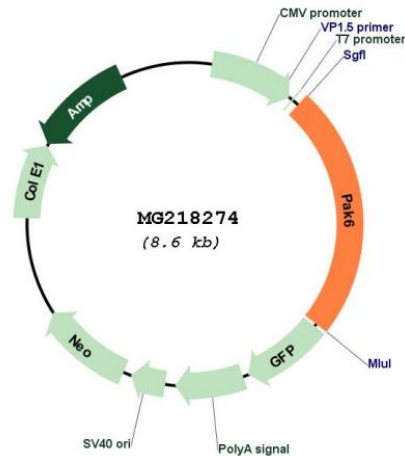
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001033254

**ORF Size:** 2046 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\\_001033254.3](#), [NP\\_001028426.2](#)

**RefSeq Size:** 4137 bp

RefSeq ORF: 2049 bp

Locus ID: 214230

UniProt ID: [Q3ULB5](#)

Cytogenetics: 2 E5

**Gene Summary:** Serine/threonine protein kinase that plays a role in the regulation of gene transcription. The kinase activity is induced by various effectors including AR or MAP2K6/MAPKK6. Phosphorylates the DNA-binding domain of androgen receptor/AR and thereby inhibits AR-mediated transcription. Inhibits also ESR1-mediated transcription. May play a role in cytoskeleton regulation by interacting with IQGAP1. May protect cells from apoptosis through phosphorylation of BAD (By similarity).[UniProtKB/Swiss-Prot Function]