

Product datasheet for **RG226606**

PKR (EIF2AK2) (NM_001135651) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKR (EIF2AK2) (NM_001135651) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EIF2AK2
Synonyms:	EIF2AK1; LEUDEN; PKR; PPP1R83; PRKR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG226606 representing NM_001135651
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGGTGATCTTTCAGCAGGTTTCTTCATGGAGAACTTAATACATACCGTCAGAAGCAGGGAGTAG
 TACTTAAATATCAAGAACTGCCTAATTCAGGACCTCCACATGATAGGAGGTTTACATTTCAAGTTATAAT
 AGATGGAAGAGAATTTCCAGAAGGTGAAGGTAGATCAAAGAAGGAAGCAAAAAATGCCGACGCAAAATTA
 GCTGTTGAGATACTTAATAAGGAAAAGAAGGCAGTTAGTCCTTTATTATTGACAACAACGAATTCCTCAG
 AAGGATTATCCATGGGAATTACATAGGCCTTATCAATAGAATTGCCAGAAGAAAAGACTAACTGTAAA
 TTATGAACAGTGTGCATCGGGGTGCATGGCCAGAAGGATTTTCATTATAAATGCAAAATGGGACAGAAA
 GAATATAGTATTGGTACAGGTTCTACTAAACAGGAAGCAAAACAATTGGCCGCTAAACTGCATATCTTC
 AGATATTATCAGAAGAACTCAGTGAAATCTGACTACCTGTCTCTGGTCTTTTCTACTACGTGTGA
 GTCCCAAAGCAACTCTTTCAGTGACCAGCACACTCGCTTCTGAATCATCATCTGAAGGTGACTTCTCAGCA
 GATACATCAGAGATAAATTTCAACAGTGACAGTTTAAACAGTTCTTCGTTGCTTATGAATGGTCTCAGAA
 ATAATCAAAGGAAGGCAAAAAGATCTTTGGCACCCAGATTTGACCTTCCTGACATGAAAGAAACAAAGTA
 TACTGTGGACAAGAGGTTTGGCATGGATTTTAAAGAAATAGAATTAATTGGCTCAGGTGGATTTGGCCAA
 GTTTTCAAAGCAAAACACAGAATTGACGGAAAGACTTACGTTATTAACGTGTTAAATATAATAACGAGA
 AGGCGGAGCGTGAAGTAAAAGCATTGGCAAACTTGATCATGTAATATTGTTCACTACAATGGCTGTTG
 GGATGGATTTGATTATGATCCTGAGACCACTGATGATTCTCTTGAGAGCAGTGATTATGATCCTGAGAAC
 AGCAAAAATAGTTCAGGTCAAAGACTAAGTGCCTTTTCATCAAATGGAATTCGTGATAAAGGGACCT
 TGGAAACAATGGATTGAAAAAGAAGAGGCGAGAAACTAGCAAAAGTTTTGGCTTTGGAATCTTTGAAACA
 AATAACAAAAGGGTGGATTATATACATTCAAAAAAATTAATTCATAGAGATCTTAAGCCAAGTAATATA
 TTCTTAGTAGATACAAAACAAGTAAAGATTGGAGACTTTGGACTTGAACATCTCTGAAAAATGATGGAA
 AGCGAACAAGGAGTAAGGGAACCTTTCGATACATGAGCCAGAACAGATTTCTTCGCAAGACTATGGAAA
 GGAAGTGGACCTTACGCTTTGGGGCTAATCTTGCTGAACCTTCTCATGTATGTGACACTGCTTTTGAA
 ACATCAAAGTTTTTCACAGACCTACGGGATGGCATCATCTCAGATATATTTGATAAAAAAGAAAAAATC
 TTCTACAGAAATTAATCTCAAAGAACTGAGGATCGACCTAACACATCTGAAATACTAAGGACCTTGAC
 TGTGTGGAAGAAAAGCCAGAGAAAAATGAACGACACACATGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG226606 representing NM_001135651
 Red=Cloning site Green=Tags(s)

MAGDLSAGFFMEELNTYRQKQGVVLYQELPNSGPPHRRFTFQVIIDGREFPEGEGRSKKEAKNAAKL
 AVEILNKEKKAVSPLLLTTTNSSEGLSMGNYIGLINRIAQKRLTVNYEQCASGVHGPFGHYKCKMGQK
 EYSIGTGSTKQEAQLAAKLAYLQILSEETSVKSDYLSGSFATTCESSQNSLVTSTLASESSSEGDFSA
 DTSEINSNSDSLNSLLMNLRRNQKAKRSLAPRFDLPDMKETKYTVDKRFGMDFKEIELIGSGFGQ
 VFAKHRIDGKTYVIKRVKYNNEKAEREVKALAKLDHVNIHVHNGCWDGFDYDPETSDSLESSDYDPEN
 SKNSSRSKTKCLFIQMEFCDKGTLEQWIEKRRGEKLDKVLALFEQITKGVVYIHSKLIHRDLKPSNI
 FLVDTKQVKIGDFGLVTSKNDGKRTRSKGTLRYMSPEQISSQDYGKEVDLYALGLILAELLHVCDTAFE
 TSKFFTDLRDGIISDIFDKKEKLLQKLLSKKPEDRPNTSEILRTLTVWKKSPKNERHTC

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_001135651
ORF Size:	1653 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:	<ol style="list-style-type: none">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_001135651.3
RefSeq Size:	2696 bp
RefSeq ORF:	1656 bp
Locus ID:	5610
UniProt ID:	P19525
Cytogenetics:	2p22.2
Protein Families:	Druggable Genome, Protein Kinase, Transcription Factors
Gene Summary:	The protein encoded by this gene is a serine/threonine protein kinase that is activated by autophosphorylation after binding to dsRNA. The activated form of the encoded protein can phosphorylate translation initiation factor EIF2S1, which in turn inhibits protein synthesis. This protein is also activated by manganese ions and heparin. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]