

## Product datasheet for **SC113560**

### **RIOK2 (NM\_018343) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RIOK2 (NM_018343) Human Untagged Clone
Tag:	Tag Free
Symbol:	RIOK2
Synonyms:	RIO2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_018343 edited  
 ATGGGGAAAGTGAATGTGGCCAAGTTGCCTTACATGAGCCGAGATGACTTCAGGGTCTTG  
 ACCGCGGTTGAAATGGGCATGAAGAACCATGAAATTTGCCCGCAGTTTGATTGCTTCT  
 ATAGCCAGCCTTAAACATGGTGGCTGTAATAAAGTTTTAAGAGAATTAGTGAAACATAAA  
 CTCATAGCTTGGGAGCGTACAAAACCTGCCAGGGCTATCGGTTGACAAATGCAGGATAT  
 GATTACCTAGCTTTGAAAACACTTCTTCTAGGCAAGTAGTTGAGTCTGTTGGAAACCAG  
 ATGGGTGTTGGCAAAGAATCAGATATTTACATTGTTGCAAAATGAAGAAGGACAACAATTT  
 GCATTAAGCTTACAGACTAGGAAGAACCCTCGTTTCGAAATTTGAAAAACAAACCGAT  
 TATCATAAACATAGGCACAATGTGTCTTGGCTTTATTTATCTCGTCTCTGCCATGAAG  
 GAATTTGCCTATATGAAGGCATTGTATGAGAGGAAATTTCCAGTTCCAAAGCCAATTGAT  
 TACAATCGTCATGCAGTGGTCATGGAACCTATAAATGGTTATCCACTATGTCAGATACAC  
 CATGTTGAAGATCCTGCATCAGTATATGATGAAGCTATGGAACCTAATTGTCAAACCTGCA  
 AATCATGGGCTGATTCATGGAGATTTTAAATGAATTTAATCTCATTTTGGATGAAAGTGAC  
 CATATCACCATGATTGATTTTCCACAGATGGTTTCAACTTCTCATCCCAATGCTGAGTGG  
 TATTTTGCAGAGATGTTAAATGCATTAAGATTTCTTTATGAAACGTTTCAGCTACGAA  
 AGTGAGCTTTTTCCAACTTTTAAGGATATCAGGAGAGAAGACACTCTTGATGTGGAGGTT  
 TCTGCCAGTGGCTACACAAGGAAATGCAGGCAGATGATGAACTGCTTCATCCATTAGGT  
 CCAGATGATAAAAATATTGAAACAAAAGAGGGATCTGAATTTCTCATTTTTCAGATGGAGAA  
 GTGGCAGAAAAAGCAGAGGTTTACAGGTCAGAAAATGAAAGTGAACGGAACCTGTCTAGAA  
 GAATCAGAGGGCTGCTATTGCAGATCATCTGGAGACCCTGAACAAATAAAGGAAGACAGT  
 TTATCAGAAGAGAGTGTGATGCACGGAGTTTTGAAATGACTGAATTCATCAAGCTTTA  
 GAAGAAAATAAAGGGCAGGTTGTTGAAAACAACCTGTAACCTGAATTTTCTGAGGAGAAA  
 AACAGAACTGAAAATTACAACAGGCAAGATGGTCAGAGAGTTCAAGGAGGAGTCCCTGCT  
 GGCTCTGACGAGTATGAAGATGAATGCCCTCATCTAATTGCCTTGTCTGATTAATAAG  
 GAATTCAGGCCTTTCAGAGATGAAGAAAATGTGGGAGCTATGAATCAGTATAGAACAAGA  
 ACTCTGAGTATCACTTCTTCAGGCAGTGTGTAAGCTGTTCAACAATTCCTCCAGAACTG  
 GTGAAACAGAAGGTGAAACGTCAGTTGACAAAACAGCAAAAATCAGCTGTGAGACGTCGA  
 TTGCAGAAAGGAGAAGCAAAATATTTACCAAGCAACGTAGGGAAAACATGCAAAATATC  
 AAATCAAGTTTGAAGCAGCTAGCTTTTGGGGAGAATAA

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_018343 unedited  
 NGGTTCCACATTTGTATACGACTCCTATAGGCGGCCGNAATTCGCACGAGGGTCGTG  
 GAGAGGCATCTGGGTTCCGACTGGGGCCGNCCATGGGGAAAGTGAATGTGGCCAAGTTGC  
 GTTACATGAGCCGAGATGACTTCAGGGTCTTGACCGCGGTTGAAATGGGCATGAAGAACC  
 ATGAAATGTTCCCGCAGTTTGATTGCTTCTATAGCCAGCCTTAAACATGGTGGCTGTA  
 ATAAAGTTTTAAGAGAATTAGTGAACATAAACTCATAGCTTGGGAGCGTACAAAACCTG  
 TCCAGGGCTATCGGTTGACAAATGCAGGATATGATTACCTAGCTTTGAAAACACTTTCTT  
 CTAGGCAAGTAGTTGAGTCTGTTGGAAACCAGATGGGTGTTGGCAAAGAATCAGATATTT  
 ACATTGTTGCAAATGAAGAAGGACAACAATTTGCATTAAGCTTACAGACTAGGAAGAA  
 CCTCGTTTCGAAATTTGAAAAACAAACGCGATTATCATAAACATAGGCACAATGTGTCTT  
 GGCTTTATTTATCTCGTCTCTGCCATGAAGGAATTTGCCTATATGAAGGCATTGTATG  
 AGAGGAAATTTCCAGTTCCAAAGCCAATTGATTACAATCGTCATGCAGTGGTCATGGAAC  
 TCATAAATGGTTATCCACTATGTCAGATACACCATGTTGAAGATCCTGCATCAGTATATG  
 ATGAAGCTATGGAACCTAATTGTCANACTTGCAAAATCATGGGCTGATTCATGGAGATTNTA  
 ATGAANTTAATCTCATTNTGGATGAAAGTGACCATATCACCATGATTGATTNTCCACAGA  
 TGGGTTTCAACTCTCATCCCATGCTGAGTGGATTTTGCAGAGAGTTAAATGCATAAAGA  
 TTCTTAT

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_018343 unedited GCCGTTGCAGAGGGTTTGATTTATTTTATATGATAGCCTTGGCTCAAAAAGACAAATGA GGCTCAAAAGGGAATTACAGTAACTTTAAAAAATTATTAACATATCCAAGATCCTAAAT ATATTATTTCTCCCAAAAGCTAGCTGCTTCCAACTTGATTTGATATTTTGCATGTTTTT CCTACGTTGCTTGGTAAATATATTTGCTTCTCCTTTCTGCAATCGACGCTGACAGCTGA TTTTTGCTGTTTTGTCAACTGACGTTTCACCTTCTGTTTCACCAGTTCTGGAGGAATTGT TGAACAGCTTACAGCACTGCCTGAAGAAGTGATACTCAGAGTTCTTGTCTATACTGATT CATAGCTCCACATTTTCTCATCTCTGAAAGGCCTGAATTCTCTATTTAATGACGACAA GGCAATTAGATGAGGGCATTTCATCTTCATACTCGTCAGAGCCAGCAGGGACTCCTCCTTG AACTCTGACCATCTTGCCCTGTGTAATTTTCAGTTCTGTTTTTCTCCTCAGAAAATTC AGTTACAGAGTTGTTTTCAACAACCTGCCCTTTATTTCTCTAAAGCTTGATTGAATTC AGTCATTTCAAACCTCCGTGCATCAGCACTCTCTCTGATAAACTGTCTTCTTTATTTG TTCAGGGTCTCCAGATGATCTGCAATAGCAGCCCTCTGATTCTTCTAGACAGTTCCGTTT ACTTTTCTTTCTGACCCTGTAACCTCTGCTTTTTNCTGCCACTTCTCCATCTGAAATGA GAAATCAGATCCCTCTTCTGTTCCATATTTTATAATCTGGGACCTAATGAATGAAGCAG TTCATTATCTGCCTGCATTCCCTTGNGTAAACCCACTGCCAAAACCTCCATTAAGATG TCTTCTCTCTGATAN
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_018343
<b>Insert Size:</b>	2110 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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>	<u><a href="#">NM_018343.1</a></u> , <u><a href="#">NP_060813.1</a></u>
<b>RefSeq Size:</b>	1832 bp
<b>RefSeq ORF:</b>	1659 bp
<b>Locus ID:</b>	55781
<b>UniProt ID:</b>	<u><a href="#">Q9BVS4</a></u>
<b>Cytogenetics:</b>	5q15
<b>Domains:</b>	RIO
<b>Protein Families:</b>	Druggable Genome, Protein Kinase

**Gene Summary:**

Serine/threonine-protein kinase involved in the final steps of cytoplasmic maturation of the 40S ribosomal subunit. Involved in export of the 40S pre-ribosome particles (pre-40S) from the nucleus to the cytoplasm. Its kinase activity is required for the release of NOB1, PNO1 and LTV1 from the late pre-40S and the processing of 18S-E pre-rRNA to the mature 18S rRNA (PubMed:19564402). Regulates the timing of the metaphase-anaphase transition during mitotic progression, and its phosphorylation, most likely by PLK1, regulates this function (PubMed:21880710).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.