

## Product datasheet for **MR208919**

### **Pias2 (NM\_001164170) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pias2 (NM_001164170) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pias2
Synonyms:	6330408K17Rik; AI462206; ARIP3; AU018068; Dib; Miz1; PIASxalpha; PIASxb; PIASxbeta; SIZ2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR208919 representing NM\_001164170  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGTTTCTAGTTTTAGGGTTTCTGAGTTACAAGTGTACTGGGCTTTGCTGGACGGAATAAAAGTGGGC  
 GCAAGCATGACCTCCTGATGAGGGCGTTGCATTTATTGAAGAGTGGCTGCAGCCCTGCGGTTCAAGATTAA  
 AATTCGAGAATTATATAGACGCCGATACCCACGGACACTTGAAGGACTTTGTGATCTTCCACAATCAAA  
 TCATCGGTTTTAGCTTGGATGGTAGCTCATCACCCGTAGAACCCTGACTTGCCTGTGGTGGGATCCACT  
 CGTTGCCCTTGCAGTTCAATTACACCTCATTACCGTCATCTCCTGTTGGTCTGTACTGTGCAAGACAC  
 TAAGCCCACCTTTGAGATGCAGCAGCCGCTCCGCCCATCTCCTGTCCATCCTGATGTGCAGTAAAA  
 AACCTGCCTTCTATGATGTCCTTGATGTTCTCATCAAGCCCACGAGTTAGTTCAAAGCAGTATTCAGC  
 GGTTTCAAGAGAAGTTTTTATTTTGGCTTTGACACCTCAGCAAGTTAGAGAAATATGTATTTCAAGGGA  
 CTTTTTCCGGGTGGCAGGAGAGACTACACAGTCCAAGTCCAGCTGCGACTTTGCTTGGCAGAGACCAGT  
 TGCCTCAAGAAGATAACTATCCCAATAGTTTGTGTATAAAAAGTCAATGGGAAACTCTTCTTTGCCTG  
 GCTATGCGCCACCACCTAAAAATGGGATTGAACAGAAGCGCCCTGGACGCCCCCTGAACATTACGCTTT  
 AGTTAGGTTGCTTACAGCTGTGCCAAATCAGATTTCTATTTCTTGGGCATCTGAAATTGGAAAGAATTAC  
 TCCATGTCTGTGTATCTGTACGACAGCTTACATCAGCCATGTTATTACAGAGATAAAAATGAAAGGTA  
 TTAGAAATCCTGATCATTCCAGAGCACTAATAAAGAAAACTTACTGCAGACCTGATAGTGAAATTGC  
 TACAACAGTCTTCGAGTGTCTTGATGTGCCCTTAGGAAAAATGAGGCTGACAATCCCGTGGCGTGA  
 GTGACTGTACACATCTGCAGTGCTTTGATGCTGCCCTCTATCTTCAGATGAATGAGAAAAAGCCACCT  
 GGATCTGCTCTTGTGACAAAAAGGCTGCCTATGAGAGTCTGATACTAGATGGGCTTTTTATGGAAAT  
 TCTCAATGACTGTTCTGATGTGGATGAGATCAAATCCAGGAAGATGGTCTTGGTGTCCCATGAGACCT  
 AAAAAAGAAGCTATGAAAGTAACCAGCCAGCCCTGTACAAAAGTAGAAAGTTCAAGTGTCTTTAGTAAAC  
 CTTGTTCACTGACTGTAGCCAGTGTGCAAGCAAGAAGAAGATAGATGTTATTGATCTAACAATAGAGAG  
 CTCTTCTGATGAAGAGGAAGACCCTCCCGCCAAAAGGAAATGCATCTTTATGTCAGAAACACAAAGCAGT  
 CCAACCAAAGGGTTCTCATGTATCAGCCATCTTCTGTAAGGGTGCCAGTGTGACTTCAGTTGATCCTG  
 CTGCTATTCCACCTTCATTAACAGACTACTCAGTACCATTCCACCACACGCCAGTGTCAAGCATGTCATC  
 AGATTTGCCAGGAGAACAAGAAGAAATGATATAATAACGAAGTGCAGCTTGGAGCATCTTCTGATACT  
 TGCAACAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208919 representing NM\_001164170  
 Red=Cloning site Green=Tags(s)

MVSSFRVSELQVLLGFAGRNKSGRKHLLMRALHLLKSGCSPAVQIKIRELYRRRYPRTEGLCDLSTIK  
 SSVFSLDGSSSPVEPDLPVAGIHSLPSTSIPTSPSSPVGSVLLQDTKPTFEMQQPSPPIPPVHPDVQLK  
 NLPFYDVLVLIKPTSLVQSSIQRFEKFFIFALTPQQVREICISRDPLPGRRDYTVQVQLRLCLAETS  
 CPQEDNYPNSLCIKVNGKLFPLPGYAPPKNGIEQKRPGRPLNITSLVRLSSAVPNQISISWASEIGKNY  
 SMSVYLRQLTSAMLLQRLKMKGIRNPDHSRALIKEKLTADPDSEIATTSLRVSLMCPPLGKMRLTIPCR  
 VTCTHLQCFDAALYLQMNKKPTWICPVCDKKAAYESLILDGLFMEILNDCSDVDEIKFQEDGSWCPMRP  
 KKEAMKVTSQPCTKVESSVFSKPCSVTVASDASKKIDVIDLTISSSDEEEDPPAKRKCIFMSETQSS  
 PTKGVLMYQPSSVRVPSVTSVDPAAIIPSLTDYSVPFHHTPVSSMSSDLPGEQRRNDINNEVQLGASD  
 T VQQ

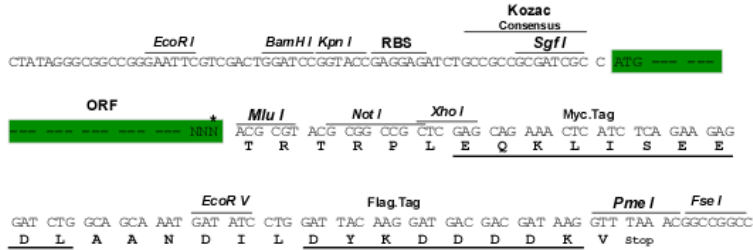
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

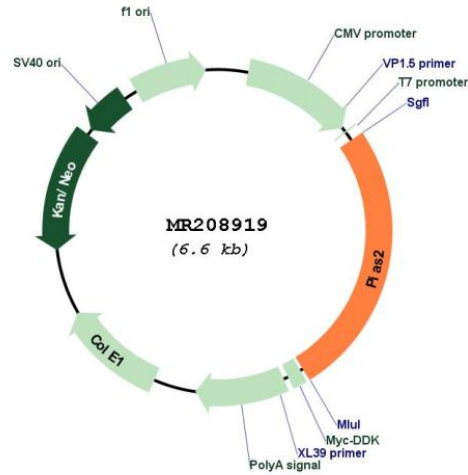
Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


ACCN: NM\_001164170  
 ORF Size: 1695 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001164170.1</a> , <a href="#">NP_001157642.1</a>
<b>RefSeq Size:</b>	2089 bp
<b>RefSeq ORF:</b>	1698 bp
<b>Locus ID:</b>	17344
<b>UniProt ID:</b>	<a href="#">Q8C5D8</a>
<b>Cytogenetics:</b>	18 E3
<b>MW:</b>	63 kDa
<b>Gene Summary:</b>	Functions as an E3-type small ubiquitin-like modifier (SUMO) ligase, stabilizing the interaction between UBE2I and the substrate, and as a SUMO-tethering factor. Plays a crucial role as a transcriptional coregulation in various cellular pathways, including the STAT pathway, the p53 pathway and the steroid hormone signaling pathway. The effects of this transcriptional coregulation, transactivation or silencing may vary depending upon the biological context and PIAS2 isoform studied. However, it seems to be mostly involved in gene silencing. Binds to sumoylated ELK1 and enhances its transcriptional activity by preventing recruitment of HDAC2 by ELK1, thus reversing SUMO-mediated repression of ELK1 transactivation activity. Isoform PIASx-beta, but not isoform PIASx-alpha, promotes MDM2 sumoylation. Isoform PIASx-alpha promotes PARK7 sumoylation. Isoform PIASx-beta promotes NCOA2 sumoylation more efficiently than isoform PIASx-alpha (By similarity). Sumoylates PML at 'Lys-65' and 'Lys-160' (By similarity).[UniProtKB/Swiss-Prot Function]