

Product datasheet for **MR225568**

Pias2 (NM_008602) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pias2 (NM_008602) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pias2
Synonyms:	6330408K17Rik; AI462206; ARIP3; AU018068; Dib; Miz1; PIASxalpha; PIASxb; PIASxbeta; SIZ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225568 representing NM_008602
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGATTTTCGAGGAGTTGAGGAATATGGTTTCTAGTTTTAGGTTTTCTGAGTTACAAGTGTACTGG
 GCTTTGCTGGACGGAATAAAAGTGGGCGCAAGCATGACCTCCTGATGAGGGCGTTGCATTTATTGAAGAG
 TGGCTGCAGCCCTGCGGTTCCAGATTAATAATTCGAGAATTATATAGACGCCGATACCCACGGACACTTGAA
 GGACTTTGTGATCTTTCCACAATCAAATCATCGGTTTTAGCTTGGATGGTAGCTCATCACCCGTAGAAC
 CTGACTTGCCCTGGCTGGGATCCACTCGTTGCCCTCGACTTCAATTACACCTCATTACCCTGTCATCTCC
 TGTTGGTTCTGTACTGCTGCAAGACACTAAGCCACCTTTGAGATGCAGCAGCCGCTCCGCCATTCTCT
 CCTGTCCATCCTGATGTGCAGTTAAAAACCTGCCTTTCTATGATGTCTTGTATGTTCTCATCAAGCCCA
 CGAGTTTAGTTCAAAGCAGTATTCAGCGGTTTCAAGAGAAGTTTTTTATTTTTGCTTTGACACCTCAGCA
 AGTTAGAGAAATATGATTTTCAAGGGACTTTTTGCCGGTGGCAGGAGAGACTACACAGTCCAAGTCCAG
 CTGCGACTTTGCTTGGCAGAGACCAGTTGCCCTCAAGAAGATAACTATCCAATAGTTTGTGTATAAAAG
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 TGGACGCCCTGAACATTACGTCTTAGTTAGTTGTCTTACAGCTGTGCCAAATCAGATTTCTATTTCT
 TGGGCATCTGAAATTGGAAAGAATTACTCCATGTCTGTGTATCTTGTACGACAGCTTACATCAGCCATGT
 TATTACAGAGATTAATAATGAAAGGTATTAGAAATCCTGATCATTCCAGAGCACTAATTAAGAAAAA
 TACTGCAGACCCTGATAGTGAATTGCTACAACAGTCTTCGAGTGTCTTGTATGTCCTTTAGGAAAA
 ATGAGGCTGACAAATCCCCTGCCGTGCAGTACTGTACACATGTCAGTGTCTTGTATGTCCTTTATC
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 ATCTTTATGTCAGAAACAAAAGCAGTCCAACCAAGGGGTTCTCATGTATCAGCCATCTTCTGTAAGGG
 TGCCAGTGTGACTTCAGTTGATCCTGCTGCTATTCCACCTTCATTAACAGACTACTCAGTACCATTCCA
 CCACACGCCAGTGTCAAGCATGCATCAGATTTGCCAGGTTGGATTTTCTTTCCCTTATCCAGTTGAT
 CCCAGTACTGCTCCTATGTTTTGGATAGTCTCACCTCACCTTAACAGCAAGCAGTACGTCTGTCA
 CCACCACAGCCCCATGAAAGCAGTACTCACGTTAGTTCATCCAGCAGCAGGAGTGAGACAGGGGTCAT
 AACCAGCAGTGGGAGGAACATTCCTGACATCATCTCTTTGGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR225568 representing NM_008602
 Red=Cloning site Green=Tags(s)

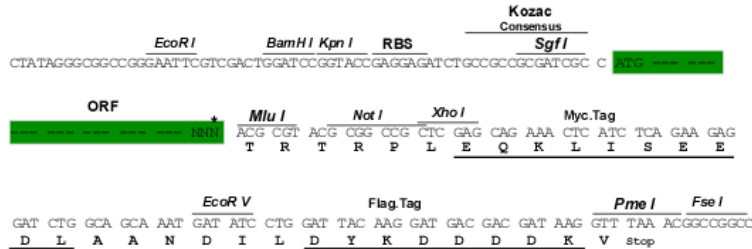
MADFEELRNMVSSFRVSELQVLLGFAGRNKSGRKHDLMLRALHLLKSGCSPAVQIKIRELYRRRYPRTE
 GLCDLSTIKSSVFLDGS SSPVEPDLPVAGIHLSPSTSIIPHSPSPVGSVLLQDTKPTFEMQQSPPIIP
 PVHPDVQLKNLPHYDVLVLIKPTSLVQSSIQRFEKFFIFALTPQQVREICISRDPLPGRRDYTVQVQ
 LRLCLAETSCPQEDNYPNSLCIKVNGKLFPLPGYAPPPKNGIEQKRPGRPLNITSLVRLSSAVPNQISIS
 WASEIGKNYSMSVYLVRQLTSAMLLQRLKMKGIRNPDHSRALIKEKLTADPDSEIATTSLRVSLMCP
 LK MRLTIPCRAVTCTHLQCFDAALYLQMNKKTWICPVCDKKAAYESLILDGLFMEILNDCSDVDEIKFQE
 DGSWCPMRPKKEAMKVT SQPCTKVESSVFSKPCSVTVASDASKKIDVIDLTISSSDEEEDPPAKRKC
 IFMSETQS SPTKGVLMYQPSSVRVPSVTSVDPAAIPPSLTDYSVPFHHTPVSSMSSDPLGLDFLSLIPVD
 PQYCPMFLDSLTSPLTASSTSVTTTSPHESSTHVSSSSSRSETGVITSSGRNIPDIISLD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_008602

ORF Size: 1863 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_008602.4](#), [NP_032628.3](#)

RefSeq Size: 4968 bp

RefSeq ORF: 1866 bp

Locus ID: 17344

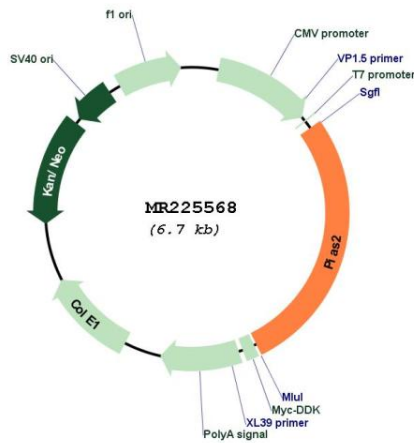
UniProt ID: [Q8C5D8](#)

Cytogenetics: 18 E3

MW: 68.9 kDa

Gene Summary: 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]

Product images:



Circular map for MR225568