

Product datasheet for **MG225573**

Pias2 (NM_001164169) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pias2 (NM_001164169) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pias2
Synonyms:	6330408K17Rik; AI462206; ARIP3; AU018068; Dib; Miz1; PIASxalpha; PIASxb; PIASxbeta; SIZ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG225573 representing NM_001164169
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGATTTTCGAGGAGTTGAGGAATATGGTTTCTAGTTTTAGGTTTTCTGAGTTACAAGTGTACTGG
 GCTTTGCTGGACGAATAAAAGTGGGCGCAAGCATGACCTCCTGATGAGGCGTTGCATTTATTGAAGAG
 TGGCTGCAGCCCTGCGGTTCCAGATTAATAATTCGAGAATTATATAGACGCCGATACCCACGGACACTTGAA
 GGACTTTGTGATCTTTCCACAATCAAATCATCGGTTTTAGCTTTGGATGGTAGCTCATCACCCGTAGAAC
 CTGACTTGCCGTGGCTGGGATCCACTCGTTGCCCTTCGACTTCAATTACACCTCATTACCCTGTCATCTCC
 TGTTGGTTCTGTACTGCTGCAAGACACTAAGCCCACCTTTGAGATGCAGCAGCCGCTCCGCCATTCTCT
 CCTGTCCATCCTGATGTGCAGTTAAAAACCTGCCTTTCTATGATGTCTTGATGTTCTCATCAAGCCCA
 CGAGTTTAGTTCAAAGCAGTATTCAGCGGTTTCAAGAGAAGTTTTTTATTTTTGCTTTGACACCTCAGCA
 AGTTAGAGAAATATGATTTTCAAGGGACTTTTTGCCGGGTGGCAGGAGAGACTACACAGTCCAAGTCCAG
 CTGCGACTTTGCTTGGCAGAGACCAGTTGCCCTCAAGAAGATAACTATCCAATAGTTTGTGTATAAAAG
 TCAATGGGAAACTCTTTCTTTGCTGGCTATGGCCACCACCTAAAAATGGGATTGAACAGAAGCGCCC
 TGGACGCCCTGAACATTACGCTTTAGTTAGGTTGTCTTCAGCTGTGCCAAATCAGATTTCTATTTCT
 TGGGCATCTGAAATTGGAAAGAATTACTCCATGTCTGTGTATCTTGACGACAGCTTACATCAGCCATGT
 TATTACAGAGATTAATAATGAAAGGATTTAGAAATCCTGATCATTCCAGAGCACTAATTAAGAAAAA
 TACTGCAGACCCTGATAGTGAATTTGCTACAACAGTCTTCGAGTGTCTTGATGTGCCCTTTAGGAAAA
 ATGAGGCTGACAAATCCCCTGCCGTGCAGTACTGTACACATGTCAGTGTCTTGATGTGCCCTTTATC
 TTCAGATGAATGAGAAAAAGCCACCTGGATCTGCTCTGTTGTGACAAAAAGGCTGCCTATGAGAGTCT
 GATACTAGATGGGCTTTTTATGGAAATCTCAATGACTGTTCTGATGTGGATGAGATCAAATTCAGGAA
 GATGGTTCTTGGTGTCCCATGAGACCTAAAAAGAAGCTATGAAAGTAACCAGCCAGCCCTGTACAAAA
 TAGAAAGTTCAAGTGTCTTTAGTAAACCTGTTTCAGTACTGTAGCCAGTGTGCAAGCAAGAAGAAGAT
 AGATGTTATTGATCTAACAATAGAGAGCTCTTCTGATGAAGAGGAAGACCCTCCCGCCAAAAGGAAATGC
 ATCTTTATGTCAGAAACAAAAGCAGTCCAACCAAGGGGTTCTCATGTATCAGCCATCTTCTGTAAGGG
 TGCCAGTGTGACTTCAGTTGATCCTGCTGCTATTCCACCTTCATTAACAGACTACTCAGTACCATTCCA
 CCACACGCCAGTGTCAAGCATGTCATCAGATTTGCCAGGAGAACAAGAAGAAATGATATTAATAACGAA
 GTGCAGCTTGGAGCATCTTCTGATACTGTGCAACAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG225573 representing NM_001164169
 Red=Cloning site Green=Tags(s)

MADFEELRNMVSSFRVSELQVLLGFAGRNKSGRKHDLLMRALHLLKSGCSPAVQIKIRELYRRRYPRTLE
 GLCDLSTIKSSVFLDGSPPVEPDLPVAGIHLSPSTSIIPHSPSSPVGSVLLQDTKPTFEMQQPSPPIP
 PVHPDVQLKNLPHYDVLVLIKPTSLVQSSIQRFEKFFIFALTPQQVREICISRDFLPGRRDYTVQVQ
 LRLCLAETSCPQEDNYPNSLCKIVNGKLFPLPGYAPPPKNGIEQKRPGRPLNITSLVRLSSAVPNQISIS
 WASEIGKNYSMSVYLVRQLTSAMLLQRLKMKGIRNPDHSRALIKEKLTADPDSEIATTSRVSLMCPLGK
 MRLTIPCRAVTCIHLQCFDAALYLQMNKPTWICPVCDKKAAYESLILDGLFMEILNDCSDVDEIKFQE
 DGSWCPMRPKKEAMKVTSPCTKVESSSVFVKPCSVTVASDASKKIDVIDLTISSSDEEEDPPAKRKC
 IFMSETQSSPTKGLMYQPSSVRVPSVTSVDPAAIPPSLTDYSVPFHHTPVSSMSSDLPGEQRRNDINNE
 VQLGASSDTVQQ

TRTRPLE – GFP Tag – V

Restriction Sites:

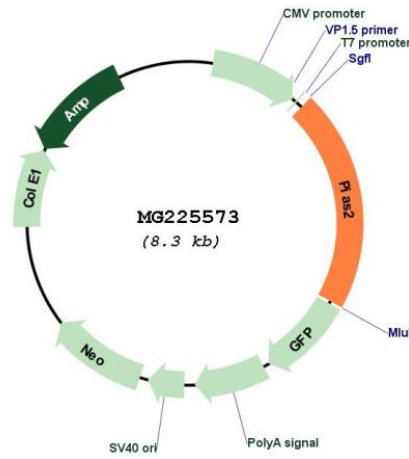
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001164169
 ORF Size: 1716 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_001164169.1 , NP_001157641.1
RefSeq Size:	2073 bp
RefSeq ORF:	1719 bp
Locus ID:	17344
UniProt ID:	Q8C5D8
Cytogenetics:	18 E3
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]