

Product datasheet for MR228099

Cib1 (NM_001291276) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cib1 (NM_001291276) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Cib1
Synonyms: Cibkip; Kip; Prkdcip
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR228099 representing NM_001291276
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGAGGTTCGGGCAGTCGCCTGTCTAAGGAGCTGCTGGCCGAGTACCAGGCTAACCCTTTCAAGGAGC
GAATCTGCATGGTCTTCCACATCACCTACCAGAGACAGCCTGAGCTTTGAGGACTTCCTGGACCTCCT
GAGTGTCTTCAGTGACACAGCAACCCAGACATCAAGTCACACTATGCCTTCCGCATCTTTGACTTTGAT
GACGATGGAACCTGGACAGAGAAGACCTGAGCCAGCTTGTGAATTGCCTCACGGGAGAGGGCGAGGACA
CTCGGCTCAGTGCTTCTGAGATGAAGCAGCTGATTGACAATATCCTGGAAGAGTCAGACATTGACAGGGA
TGGGACCATCAATCTTCCGAGTTCAGCATGTATCTCGCGCTCACCAGACTTTGCCAGCTCCTTTAAG
ATTGTCCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR228099 representing NM_001291276
 Red=Cloning site Green=Tags(s)

MGGSGSRLSKELLAQANPFKERICMVFSTSPTRDLSFEDFLDLLSVFSDTATPDIKSHYAFRIFDFD
DDGTLDRDLSQLVNCLTGEGEDTRLSASEMKQLIDNILEESDIDRDGTINLSEFQHVISRSPDFASSFK
IVL

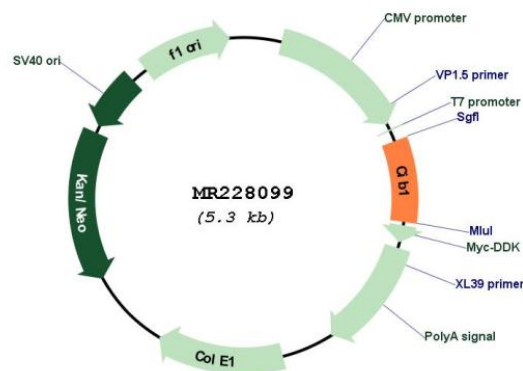
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_001291276

ORF Size: 429 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:	<u>NM_001291276.1, NP_001278205.1</u>
RefSeq Size:	911 bp
RefSeq ORF:	432 bp
Locus ID:	23991
UniProt ID:	<u>Q9Z0F4</u>
Cytogenetics:	7 D2
MW:	16.5 kDa

Gene Summary:

Calcium-binding protein that plays a role in the regulation of numerous cellular processes, such as cell differentiation, cell division, cell proliferation, cell migration, thrombosis, angiogenesis, cardiac hypertrophy and apoptosis. Involved in bone marrow megakaryocyte differentiation by negatively regulating thrombopoietin-mediated signaling pathway. Participates in the endomitotic cell cycle of megakaryocyte, a form of mitosis in which both karyokinesis and cytokinesis are interrupted. Plays a role in integrin signaling by negatively regulating alpha-IIb/beta3 activation in thrombin-stimulated megakaryocytes preventing platelet aggregation. Up-regulates PTK2/FAK1 activity, and is also needed for the recruitment of PTK2/FAK1 to focal adhesions; it thus appears to play an important role in focal adhesion formation. Positively regulates cell migration on fibronectin in a CDC42-dependent manner, the effect being negatively regulated by PAK1. Functions as a negative regulator of stress activated MAP kinase (MAPK) signaling pathways. Down-regulates inositol 1,4,5-trisphosphate receptor-dependent calcium signaling. Involved in sphingosine kinase SPHK1 translocation to the plasma membrane in a N-myristoylation-dependent manner preventing TNF-alpha-induced apoptosis. Regulates serine/threonine-protein kinase PLK3 activity for proper completion of cell division progression. Plays a role in microtubule (MT) dynamics during neuronal development; disrupts the MT depolymerization activity of STMN2 attenuating NGF-induced neurite outgrowth and the MT reorganization at the edge of lamellipodia. Promotes cardiomyocyte hypertrophy via activation of the calcineurin/NFAT signaling pathway. Stimulates calcineurin PPP3R1 activity by mediating its anchoring to the sarcolemma. In ischemia-induced (pathological or adaptive) angiogenesis, stimulates endothelial cell proliferation, migration and microvessel formation by activating the PAK1 and ERK1/ERK2 signaling pathway. Promotes also cancer cell survival and proliferation. May regulate cell cycle and differentiation of spermatogenic germ cells, and/or differentiation of supporting Sertoli cells.[UniProtKB/Swiss-Prot Function]