

Product datasheet for MR202572

Chac1 (NM_026929) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chac1 (NM_026929) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Chac1
Synonyms:	1810008K03Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR202572 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCAAGAGTCCGCATCCCAGAGCACTCCGCCTCCTTCACTGTCCCCTGCACCATCATCCGCGCAGC
CTTTCTGGGGGGATGGCGACCCCAAGCCCTGTGGATTTTCGGGTACGGCTCCCTAGTGTGAAGCCGGA
CTTTGCCTATAGTGACAGCCGTGTGGCTTCGTTCTGGCTATAGCCGACGGTCTGGCAGGGAGACACC
TTCCATAGGGGCAGCGACAAGATGCCTGGCCGAGTGGTACCCTCCTGAAGACCATGAGGGCTGCACTT
GGGGTGTGGCATACCAAGTTCGAGGGGAGCAGGTGAACGAGGCCCTGAAGTACCTGAATGTGAGGGAAGC
CGTGCTTGGTGGCTATGACACTAAGGAAGTCACCTTTATCCTCAAGACACCCCTGACCAACCCCTCACA
GCACTGGCCTATGTGGCCACCCACAGAACCCTGGCTACCTGGGCCCTGCTCCTGAAGAGGTCATTGCCA
CACAGATCCTTGCTTGCCGAGGCTTCTCTGGTCACAACCTTGAGTACTTATTGCGTTTGGCAGACTTCAT
GCAGCTCTGTGGCCCTCAGGCACAAGATGAGCACCTGGAAGCCATTGTGGACGCCGTAGGAACCCCTGCTA
CCCTGCTTACCTCCCTGAGCAGCCTCTGGCACTGACC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR202572 protein sequence
Red=Cloning site Green=Tags(s)

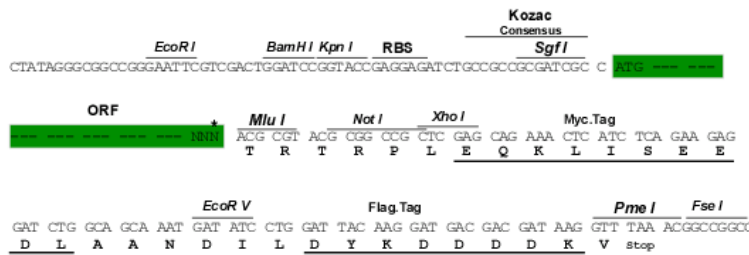
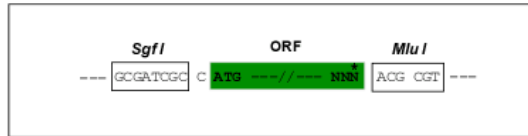
MKQESASQSTPPPSLSPAPSSAQPFWGDGDPQALWIFGYGSLVWKPDFAYSDSRVGFVRGYSRRFWQGD
 FHRGSDKMPGRVVTLLEDHEGCTWGVAYQVRGEQVNEALKYLNVREAVLGGYDTKEVTFYPQDTPDQPLT
 ALAYVATPQNPGYLGAPEEVIATQILACRFGSGHNLEYLLRLADFMQLCGPQAQDEHLEAIVDAVGTLL
 PCSYLPQPLALT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_026929

ORF Size: 672 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_026929.1](#), [NM_026929.2](#), [NM_026929.3](#), [NM_026929.4](#), [NP_081205.1](#)

RefSeq Size: 1583 bp

RefSeq ORF: 672 bp

Locus ID: 69065

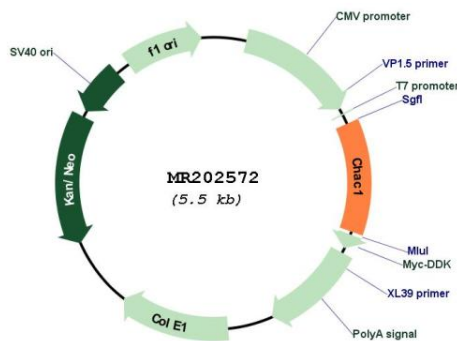
UniProt ID: [Q8R3J5](#)

Cytogenetics: 2 E5

MW: 24.6 kDa

Gene Summary: Catalyzes the cleavage of glutathione into 5-oxo-L-proline and a Cys-Gly dipeptide. Acts specifically on glutathione, but not on other gamma-glutamyl peptides. Glutathione depletion is an important factor for apoptosis initiation and execution. Acts as a pro-apoptotic component of the unfolded protein response pathway by mediating the pro-apoptotic effects of the ATF4-ATF3-DDIT3/CHOP cascade (By similarity). Negative regulator of Notch signaling pathway involved in embryonic neurogenesis: acts by inhibiting Notch cleavage by furin, maintaining Notch in an immature inactive form, thereby promoting neurogenesis in embryos (PubMed:22445366).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR202572