

Product datasheet for **RR216083**

Chac1 (NM_001173437) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Chac1 (NM_001173437) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Chac1
Synonyms: RGD1307153
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR216083 representing NM_001173437
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCAGGAGTCCGCAGCCCAGAGCACCCCGCCTCCTTCACTGTCCCCTGCACCATCCGCGCAGCCTT
CCTGGGAGGATGGCGACCCCAAGCCCTGTGGATTTTCGGGTACGGCTCCCTAGTGTGGAAGCCTGACTT
TGCTACAGCGACAGCCGTGTGGCTTCGTACGTGGCTATAGCCGACGGTCTGGCAGGGAGACACCTTC
CACAGGGGCAGCGATAAGATGCCTGGCCGAGTGGTGACCCCTCTTGAAGATCATGAGGGCTGCACCTGGG
GTGTGGCATAACAGGTTTCGAGGGGAGCAGGTGAGCGAGGCACTGAAGTACCTGAACGTGAGAGAAGCTGT
GCTTGGTGGCTACGACACTAAGGAAGTCACCTTTTATCCTCAAGACACCCTGACCAACCCTCACAGCA
CTGGCCTATGTGGCCACCCACAGAACCCTGGCTACCTGGGCCCTGTCCCAGAGAGGTCATTGCCACAC
AGATCCTTGCTTGCCGAGGCTTCTCTGGCCACAACCTGAATACTTGTTCGTTTGGCAGACTTCATGCA
GCTCTGTGGGCCCTCAGGCACAAGATGAGCACCTGGAAGCCATCGTGGATGCCGTAGGAAGCTTGTGCC
TGCTCTTACCTCTCTGAGCAGCCTCTGGCACTGATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR216083 representing NM_001173437
 Red=Cloning site Green=Tags(s)

MKQESAAQSTPPPSLSPAPSAQPSWEDGDPQALWIFGYGSLVWKPDFAYSDSRVGFVRGYSRRFWQDFT
 HRGSDKMPGRVVTLLLEDHEGCTWGVAYQVRGEQVSEALKYLVNREAVLGGYDTKEVTFYPQDTPDQPLTA
 LAYVATPQNPGYLGPAPEEVIATQILACRGFSGHNLEYLLRLADFMQLCGPQAQDEHLEAIVDAVGSLLP
 CSYLSEQLALI

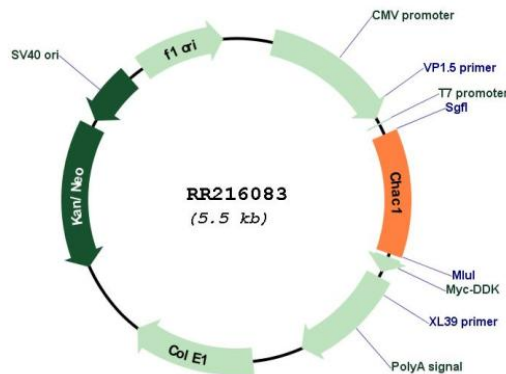
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001173437

ORF Size: 666 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_001173437.1 , NP_001166908.1
RefSeq Size:	1569 bp
RefSeq ORF:	669 bp
Locus ID:	362196
UniProt ID:	B3STU3
Cytogenetics:	3q35
MW:	24.5 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. 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. [UniProtKB/Swiss-Prot Function]