

Product datasheet for **MG202572**

Chac1 (NM_026929) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chac1 (NM_026929) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Chac1
Synonyms:	1810008K03Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG202572 representing NM_026929 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCAAGAGTCCGCATCCCAGAGCACTCCGCCTCCTTCACTGTCCCCTGCACCATCATCCGCGCAGC
CTTTCTGGGGGATGGCGACCCCAAGCCCTGTGGATTTTCGGGTACGGCTCCCTAGTGTGGAAGCCGGA
CTTTGCCTATAGTGACAGCCGTGTGGCTTCGTTTCGTTGGCTATAGCCGACGGTCTGGCAGGGAGACACC
TTCCATAGGGGCAGCGACAAGATGCCTGGCCGAGTGGTACCCTCCTTGAAGACCATGAGGGCTGCACTT
GGGGTGTGGCATACCAAGTTCGAGGGGAGCAGGTGAACGAGGCCCTGAAGTACCTGAATGTGAGGGAAGC
CGTGCTTGGTGGCTATGACACTAAGGAAGTCACCTTTTATCCTCAAGACACCCCTGACCAACCCCTCACA
GCACTGGCCTATGTGGCCACCCACAGAACCCTGGCTACCTGGGCCCTGCTCCTGAAGAGGTCATTGCCA
CACAGATCCTTGCTTGCCGAGGCTTCTCTGGTCAACCTTGAGTACTTATTGCGTTTGGCAGACTTCAT
GCAGCTCTGTGGCCTCAGGCACAAGATGAGCACCTGGAAGCCATTGTGGACGCCGTAGGAACCCCTGCTA
CCCTGCTTACCTCCCTGAGCAGCCTCTGGCACTGACC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG202572 representing NM_026929
 Red=Cloning site Green=Tags(s)

MKQESASQSTPPPSLSPAPSSAQPFWGDGDPQALWIFGYGSLVWKPDFAYSDSRVGFVRGYSRRFWQGD
 FHRGSDKMPGRVVTLLEDHEGCTWGVAYQVRGEQVNEALKYLNVREAVLGGYDTKEVTFYPQDTPDQPLT
 ALAYVATPQNPGYLGPAPEEVIATQILACRGFSGHNLEYLLRLADFMQLCGPQAQDEHLEAIVDAVGTLL
 PCSYLP EQPLALT

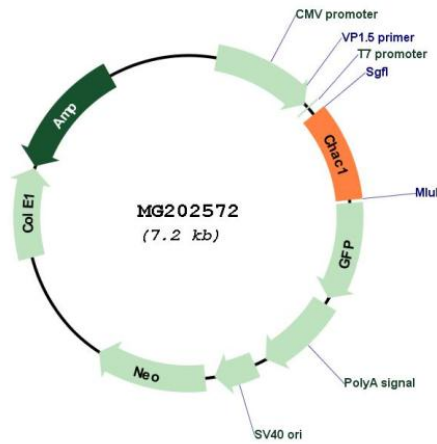
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_026929

ORF Size: 669 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_026929.2 , NP_081205.1
RefSeq Size:	1613 bp
RefSeq ORF:	672 bp
Locus ID:	69065
UniProt ID:	Q8R3J5
Cytogenetics:	2 E5
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]