

Product datasheet for **RG229135**

CHAC1 (NM_024111) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CHAC1 (NM_024111) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CHAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229135 representing NM_024111 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGGGCGCTCAGCTGGAGCTACCGAGCGGTGCCAGGCCAGGTGTGTGCGTCCGTCGGTCTTTCCGTG
CCCACGCCGAGACCAGCCCCGGAGGCCGCTGGGCCTATCCCTGTGCCAGGCACCATGAAGCAGGAGTC
TGCAGCCCCGAACACCCCGCCACCTCGCAGTCCCCTACGCCGTCGCTCAGTTCCCCGAAACGACGGC
GACCCCTCAAGCGCTGTGGATTTTCGGGTACGGCTCCCTGGTGTGGAGGCCGACTTCGCCTACAGCGACA
GCCGTGTGGGCTTCGTGCGCGGCTACAGCCGCCGTTTCTGGCAGGGAGACACCTTCCATCGGGGCAGCGA
CAAGATGCCTGGCCGTGTGGTGACGCTCCTTGAAGATCATGAGGGCTGCACTTGGGGCGTGGCATACCAA
GTGCAAGGGGAGCAGGTAAGCAAGGCCCTGAAGTACCTGAATGTGCGAGAGGCAGTGCTTGGTGGCTACG
ATACCAAGGAGGTCACCTTCTATCCCCAAGATGCTCCTGACCAACCACTGAAGGCATTGGCCTATGTGGC
CACCCACAGAACCCTGGTTACCTGGGCCCTGCGCCTGAAGAGGCCATTGCCACGCAGATCCTGGCCTGC
CGGGGCTTCTCCGGCCACAACCTTGAATACTTGTGCGTCTGGCAGACTTCATGCAGCTCTGTGGGCCTC
AGGCGCAGGACGAGCACCTGGCAGCCATCGTGGACGCTGTGGGCACCATGTTGCCCTGCTTCCCCAC
CGAGCAGGCTCTGGCGCTGGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG229135 representing NM_024111
 Red=Cloning site Green=Tags(s)

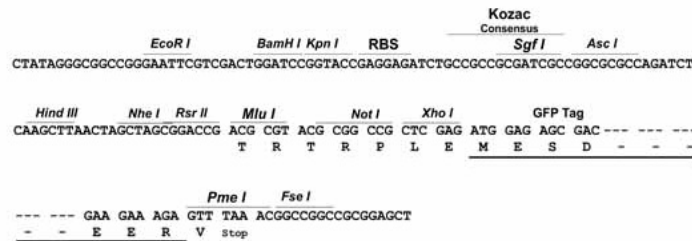
MGGAQLELPSGARPGVCVRRSFRAHAGDQPRRPPGPIPVPGTMKQESAAPNTPTTSQSPTPSAQFPRNDG
 DPQALWIFGYGSLVWRPDFAYSDSRVGFVRGYSRRFWQGDFFHRGSDKMPGRVVTLLDHEGCTWGVAYQ
 VQGEQVSKALKYLNVREAVLGGYDTKEVTFYPQDAPDQPLKALAYVATPQNPGYLGPAPPEAIATQILAC
 RGFSGHNLEYLLRLADFMQLCGPQAQDEHLAAIVDAVGTMLPCFCPTEQALALV

TRTRPLE - GFP Tag - V

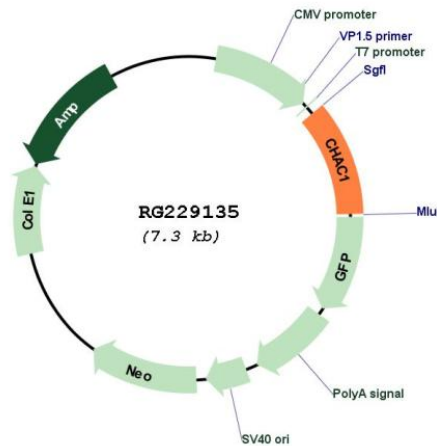
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_024111

ORF Size: 792 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_024111.4](#)

RefSeq Size: 1578 bp

RefSeq ORF: 669 bp

Locus ID: 79094

UniProt ID: [Q9BUX1](#)

Cytogenetics: 15q15.1

Domains: ChaC

Gene Summary: This gene encodes a member of the gamma-glutamylcyclotransferase family of proteins. The encoded protein has been shown to promote neuronal differentiation by deglycosylation of the Notch receptor, which prevents receptor maturation and inhibits Notch signaling. This protein may also play a role in the unfolded protein response, and in regulation of glutathione levels and oxidative balance in the cell. Elevated expression of this gene may indicate increased risk of cancer recurrence among breast and ovarian cancer patients. [provided by RefSeq, Sep 2016]