

Product datasheet for RC239994

CIITA (NM_001286402) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CIITA (NM_001286402) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CIITA
Synonyms:	C2TA; CIITAIV; MHC2TA; NLRA
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC239994 representing NM_001286402 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGTTGGCTCCACGCCCTGCTGGGTCTACCTGTCAGAGCCCCAAGGCAGCTCACAGTGTGCCA
CCATGGAGTTGGGGCCCCTAGAAGGTGGCTACCTGGAGCTTCTAACAGCGATGCTGACCCCTGTGCCT
CTACCCTTCTATGACCAGATGGACCTGGCTGGAGAAGAAGAGATTGAGCTCTACTCAGAACCCGACACA
GACACCATCAACTGCGACCAATTCAGCAGGCTGTTGTGTGACATGGAAGGTGATGAAGAGACCAGGGAGG
CTTATGCCAATATCGCGAACTGGACCAATGTCCTCCAGGACTCCCAGCTGGAGGGCCTGAGCAAGGA
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CAGAAAAGTCAGAAAAGACCCCTCCAGAGGAGCTTCCGGCAGACCTGAAGCACTGGAAGCCAGCTGAGC
CCCCACTGTGGTGACTGGCAGTCTCCTAGTGGGACCAGTGAGCGACTGCTCCACCCTGCCCTGCCTGCC
ACTGCCTGCGCTGTTCAACCAGGAGCCAGCCTCCGGCCAGATGCGCCTGGAGAAAACCGACCAGATTCCC
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CCATGGTGAGGTGCCCCAGGCCAGCCAAGTACCCCTCCAGTGGATTCACTGTCCACGGCCTCCCAACA
TCTCCAGACCGGCCAGGCTCCACCAGCCCTTCGCTCCATCAGCCACTGACCTGCCAGCATGCCTGAAC
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GGTGCCGAGCCCCGAGGCCCGGATGGCATCCTAGTGGAGGTGGATCTGGTGCAGGCCAGGCTGGAGAGGA
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AGACCTGACCGCTTCTGCTCATCTAGACGGCTTCGAGGAGCTGGAAGCGCAAGATGGCTTCTGCACA



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GCACGTGCGGACCGGCACCGGCGGAGCCCTGCTCCCTCCGGGGGCTGCTGGCCGGCCTTTTCCAGAAGAA
 GCTGCTCCGAGGTTGCACCCTCCTCCTCACAGCCCGGCCCGGGGCCGCTGGTCCAGAGCCTGAGCAAG
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 CTGCAACAACAGGATTACGGATCAGCCTGAGA

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence:

>RC239994 representing NM_001286402
 Red=Cloning site Green=Tags(s)

MRCLAPRPAGSYLSEPPQSSQCATMELGPLLEGGYLELLNSDADPLCLYHFYDQMDLAGEEEIELYSEPD
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 VQKSKQKRPPEELPADLKHWPAPPTVVTGSLLVGPVSDCSTLPLPLPALFNQEPASGQMRLEKTDQIP
 MPFSSSSLSCNLPEGPIQFVPTISTLPHGLWQISEAGTGVSSIFYHGEVPPQASQVPPPSGFTVHGLPT
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 IAVL GKAGQGGKSYWAGAVSRAWACGRLPQYDFVFSVPCHCLNRPGDAYGLQDLLFSLGPQPLVA
 ADEVFSHILKRPDRVLLILDGFEELAQDGFHSTCGPAPAEPCLRGLLAGLFQKLLRGCTLLL
 TARPRGRLVQSLSKADALFELSGFSMEQAQAYVMRYFESSGMTEHQDRALTLRDRPLLLSHSHS
 PTL CRAVCQLSEALLELGEDAKLPSTLTGLYVGLLGRAALDSPPGALAEAKLAWELGRRHQSTL
 QEDQFPSADVRTWAMAKGLVQHPPRAAESELAFFSFLQCFLGALWLALSSEIKDKELPQYLAL
 TPRKKRPYDNWLEGVPRFLAGLIFQPPARCLGALLGPSAAAASVDRKQKVLARYLKR
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 SLDLRSTGICPSGLGSLVGLSCVTRFRAALSDTVALWESLQHGKTLQAAEEKFTIEPFKAKSL
 KDVEDLGLVQTRSSSEDTAGELPAVRDLKKLEFALGPVSGPQAFPKLVRI LTAFFSSLQHL
 DALSENKIGDEGVSQLSATFPQLKSLETNLNQNNITDLGAYKLAALPSLAASLLRLSLYNN
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 LQQQDSRISLR

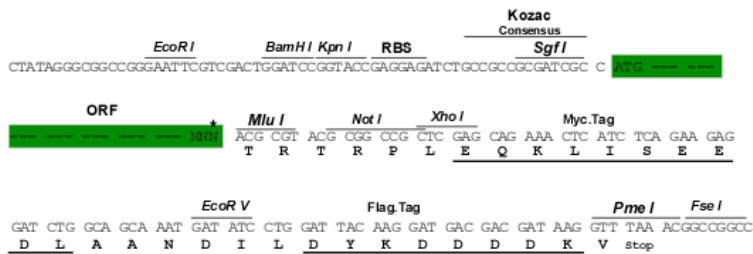
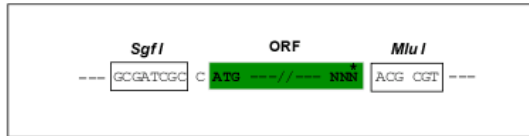
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

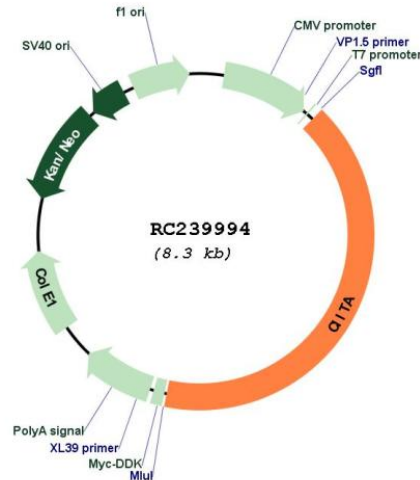
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001286402

ORF Size: 3393 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_001286402.1](#), [NP_001273331.1](#)

RefSeq Size: 4657 bp

RefSeq ORF: 3396 bp

Locus ID: 4261

Cytogenetics: 16p13.13

Protein Pathways: Antigen processing and presentation, Primary immunodeficiency

MW: 124 kDa

Gene Summary: This gene encodes a protein with an acidic transcriptional activation domain, 4 LRRs (leucine-rich repeats) and a GTP binding domain. The protein is located in the nucleus and acts as a positive regulator of class II major histocompatibility complex gene transcription, and is referred to as the "master control factor" for the expression of these genes. The protein also binds GTP and uses GTP binding to facilitate its own transport into the nucleus. Once in the nucleus it does not bind DNA but rather uses an intrinsic acetyltransferase (AT) activity to act in a coactivator-like fashion. Mutations in this gene have been associated with bare lymphocyte syndrome type II (also known as hereditary MHC class II deficiency or HLA class II-deficient combined immunodeficiency), increased susceptibility to rheumatoid arthritis, multiple sclerosis, and possibly myocardial infarction. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2013]