

## Product datasheet for **RC238840**

### CIITA (NM\_001286403) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CIITA (NM_001286403) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CIITA
Synonyms:	C2TA; CIITAIV; MHC2TA; NLRA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC238840 representing NM\_001286403  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCGTTGCCTGGCTCCACGCCCTGCTGGGTCTACCTGTGACAGCCCCAAGGCAGCTCACAGTGTGCCA  
 CCATGGAGTTGGGGCCCTAGAAGGTGGCTACCTGGAGCTTCTAACAGCGATGCTGACCCCTGTGCCT  
 CTACCACTTCTATGACCAGATGGACCTGGCTGGAGAAGAAGAGATTGAGCTCTACTCAGAACCCGACACA  
 GACACCATCAACTGCGACCAGTTGACGAGGCTGTTGTGTGACATGGAAGGTGATGAAGAGACCAGGGAGG  
 CTTATGCCAATATCGCGAACTGGACAGTATGTCTTCCAGGACTCCCAGCTGGAGGGCCTGAGCAAGGA  
 CTTTTCAAGCACATAGGACCAGATGAAGTATCGGTGAGAGTATGGAGATGCCAGCAGAAGTTGGGCAG  
 AAAAGTCAGAAAAGACCTTCCCAGAGGAGCTCCGGCAGACCTGAAGCACTGGAAGCCAGTGCCTTTCT  
 CCAGTTCTCGTTGAGCTGCCTGAATCTCCCTGAGGGACCCATCCAGTTTGTCCCACCATCTCCACTCT  
 GCCCATGGGCTCTGGCAAATCTCTGAGGCTGGAACAGGGGTCTCCAGTATATTCATCTACCATGGTGTGAG  
 GTGCCCAAGGCCAGCAAGTACCCCTCCAGTGGATTACTGTCCACGGCCTCCCAACATCTCCAGACC  
 GGCCAGGCTCCACCAGCCCTTCGCTCCATCAGCCACTGACCTGCCAGCATGCCTGAACCTGCCCTGAC  
 CTCCCAGCAAACATGACAGAGCACAAGACGTCCCCACCCAATGCCCGGAGCTGGAGAGGTCTCCAAC  
 AAGCTTCCAAAATGGCCTGGTCTAGCCTGGTACCCTGGTCTGGGTCTGAGGCCCTCCCTCCACAGGGCTG  
 CCTTGAGCGACACGGTGGCGCTGTGGGAGTCCCTGCAGCAGCATGGGGAGACCAAGCTACTTCAGGCAGC  
 AGAGGAGAAGTTCACCATCGAGCCTTCAAAGCCAAGTCCCTGAAGGATGTGGAAGACCTGGGAAAGCTT  
 GTGCAGACTCAGAGGACGAGAAGTTCCTCGAAGACACAGCTGGGAGCTCCCTGCTGTTCCGGACCTAA  
 AGAAACTGGAGTTTGGCTGGCCCTGTCTCAGGCCCCAGGCTTCCCCAAACTGGTGGGACCTCCAC  
 GGCTTTTCTCCCTGCAGCATCTGGACCTGGATGCGCTGAGTGAGAACAAGATCGGGGACGAGGTGTC  
 TCGCAGCTCTCAGCCACCTTCCCCAGCTGAAAGTCCCTGGAAACCCTCAATCTGTCCCAGAACAAATCA  
 CTGACCTGGGTGCCTACAAACTCGCCGAGGCCCTGCCTTCGCTCGCTGCATCCCTGCTCAGGCTAAGCTT  
 GTACAATAACTGCATCTGCGACGTGGGAGCCGAGAGCTTGGTCTGTGCTTCCGGACATGGTGTCCCTC  
 CGGGTGTGGACGTCCAGTACAACAAGTTCACGGCTGCCGGGGCCAGCAGCTCGCTGCCAGCCTTCGGA  
 GGTGTCTCATGTGGAGACGCTGGCGATGTGGACGCCACCATCCCATTCAGTGTCCAGGAACACCTGCA  
 ACAACAGGATTCAGGATCAGCCTGAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238840 representing NM\_001286403  
 Red=Cloning site Green=Tags(s)

MRCLAPRPAGSYLSEPOGSSQCATMELGPLEGGYLELLNSDADPLCLYHFYDQMDLAGEEIELYSEPDT  
 DTINCDQFSRLLCDMEGDEETREAYANIAELDQYVFQDSQLEGLSKDIFKHIGPDEVIGESMEMPAEVGQ  
 KSQKRPFPEELPADLKHWPVPFSSSSLCLNLPEGPIQFVPTISTLPHGLWQISEAGTVSSIFIYHGE  
 VPQASQVPPPSGFTVHGLPTSPDRPGSTSPFAPSATDLPSMPEPALTSRANMTEHKTSPQCPAAGEVSN  
 KLPKWPGLAWSPCLGLRPSLHRAALSDTVALWESLQQHGETKLLQAAEEKFTIEPFKAKSLKDVEDLGKL  
 VQTQRTRSSSEDTAGELPAVRDLKKLEFALGPVSGPQAFPKLVRILTAFSSLQHLDLDALSENKIGDEGV  
 SQLSATFPQLKSLETNLSONNITDLGAYKLAELPSLAASLLRSLYNNICDVGAESLARVLPDMVSL  
 RVMDVQYNKFTAAGAQQLAASLRRCPHVETLAMWTPTIPFSVQEHLLQQDSRISLR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

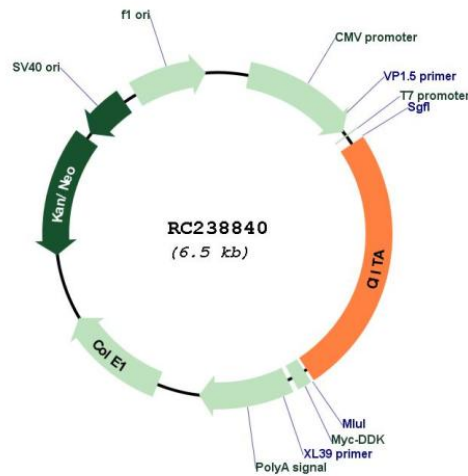
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001286403

<b>ORF Size:</b>	1638 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001286403.2</a>
<b>RefSeq Size:</b>	2902 bp
<b>RefSeq ORF:</b>	1641 bp
<b>Locus ID:</b>	4261
<b>UniProt ID:</b>	<a href="#">P33076</a>
<b>Cytogenetics:</b>	16p13.13
<b>Protein Pathways:</b>	Antigen processing and presentation, Primary immunodeficiency
<b>MW:</b>	60.1 kDa
<b>Gene Summary:</b>	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]