

Product datasheet for **SC300035**

CIITA (NM_000246) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CIITA (NM_000246) Human Untagged Clone
Tag: Tag Free
Symbol: CIITA
Synonyms: C2TA; CIITAIV; MHC2TA; NLRA
Mammalian Cell Selection: None
Vector: [pCMV6-XL5](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_000246 edited
 ATGCGTTGCCTGGCTCCACGCCCTGCTGGGTCTACCTGTCAGAGCCCCAAGGCAGCTCA
 CAGTGTGCCACCATGGAGTTGGGGCCCCCTAGAAGGTGGCTACCTGGAGCTTCTTAACAGC
 GATGCTGACCCCCCTGTGCCTCTACCACTTCTATGACCAGATGGACCTGGCTGGAGAAGAA
 GAGATTGAGCTCTACTCAGAACCCGACACAGACCCATCAACTGCGACCAAGTTCAGCAGG
 CTGTTGTGTGACATGGAAGGTGATGAAGAGACCAGGGAGGCTTATGCCAATATCGCGGAA
 CTGGACCAGTATGCTTCCAGGACTCCCAGCTGGAGGGCCTGAGCAAGGACATTTTCAAG
 CACATAGGACCAGATGAAGTGATCGGTGAGAGTATGGAGATGCCAGCAGAAGTTGGGCAG
 AAAAGTCAGAAAAGACCCCTCCAGAGGAGCTCCGGCAGACCTGAAGCACTGGAAGCCA
 GCTGAGCCCCCTGTGGTACTGGCAGTCTCCTAGTGGGACCAGTGAAGCACTGCTCC
 ACCCTGCCCTGCCTGCCACTGCCTGCGCTGTTCAACCAGGAGCCAGCCTCCGGCCAGATG
 CGCCTGGAGAAAACCGACCAAGATCCCATGCCTTCTCCAGTTCCCTCGTTGAGCTGCCTG
 AATCTCCCTGAGGGACCCATCCAGTTTGTCCCCACCATCTCCACTCTGCCCATGGGCTC
 TGGCAATCTCTGAGGCTGGAACAGGGGTCTCCAGTATATTCATCTACCATGGTGAAGTG
 CCCCAGGCCAGCCAAGTACCCCTCCCAGTGGATTCACTGTCCACGGCCTCCCAACATCT
 CCAGACCGGCCAGGCTCCACCAGCCCCTTCGCTCCATCAGCCACTGACCTGCCAGCATG
 CCTGAACCTGCCCTGACCTCCCGAGCAAACATGACAGAGCACAAGACGTCCCCACCCAA
 TGCCCCGACAGTGGAGAGGTCTCCAACAAGCTTCAAAAATGGCCTGAGCCGGTGGAGCAG
 TTCTACCGCTCACTGCAGGACACGTATGGTGCCGAGCCCGAGCCCGGATGGCATCCTA
 GTGGAGGTGGATCTGGTGCAGGCCAGGCTGGAGAGGAGCAGCAGCAAGAGCCTGGAGCGG
 GAACTGGCCACCCCGACTGGGCAGAACGGCAGCTGGCCAAAGGAGGCTGGCTGAGGTG
 CTGTTGGCTGCCAAGGAGCACCGCGGCGCGTGAGACACGAGTATTGCTGTGCTGGGC
 AAAGCTGGTCAGGGCAAGAGCTATTGGGCTGGGGCAGTGAGCCGGCCTGGGCTTGTGGC
 CGGCTTCCCCAGTACGACTTTGTCTTCTGTCCCCTGCCATTGCTTGAACCGTCCGGGG
 GATGCCTATGGCCTGCAGGATCTGCTTCTCCCTGGGCCACAGCCACTCGTGGCGGCC
 GATGAGGTTTTAGCCACATCTGAAGAGACCTGACCGGTTCTGCTCATCTAGACGCC
 TTCGAGGAGCTGGAAGCGCAAGATGGCTTCTGCACAGCAGTGGGACCGGCACCGGCC



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GAGCCCTGCTCCCTCCGGGGGCTGCTGGCCGGCCTTTTCCAGAAGAAGCTGCTCCGAGGT
 TGCACCCTCCTCCTCACAGCCCGGCCCGGGGGCCGCTGGTCCAGAGCCTGAGCAAGGCC
 GACGCCCTATTTGAGCTGTCCGGCTTCTCCATGGAGCAGGCCCAGGCATACGTGATGCGC
 TACTTTGAGAGCTCAGGGATGACAGAGCACCAAGACAGAGCCCTGACGCTCCTCCGGGAC
 CGGCCACTTCTTCTCAGTACAGCCACAGCCCTACTTTGTGCCGGGCAGTGTGCCAGCTC
 TCAGAGGCCCTGCTGGAGCTTGGGAGGACGCCAAGCTGCCCTCCACGCTCACGGGACTC
 TATGTCGGCCTGCTGGCCGTGCAGCCCTCGACAGCCCCCGGGGCCCTGGCAGAGCTG
 GCCAAGCTGGCCTGGGAGCTGGGCCGACATCAAAGTACCCTACAGGAGGACCAGTTC
 CCATCCGACAGACGTGAGGACCTGGGCGATGGCCAAAGGCTTAGTCCAACACCCACCGCGG
 GCCGACAGAGTCCGAGCTGGCCTTCCCCAGCTTCTCCTGCAATGCTTCTGGGGGCCCTG
 TGGCTGGCTCTGAGTGGCGAAATCAAGGACAAGGAGCTCCCGCAGTACCTAGCATTGACC
 CCAAGGAAGAAGAGGCCCTATGACAACTGGCTGGAGGGCGTGCCACGCTTTCTGGCTGGG
 CTGATCTTCCAGCCTCCCGCCGCTGCCTGGGAGCCCTACTCGGGCCATCGGCGGCTGCC
 TCGGTGGACAGGAAGCAGAAGGTGCTTGCAGGTACCTGAAGCGGCTGCAGCCGGGGACA
 CTGCGGGCGCGCAGCTGCTTGAGCTGCTGCACTGCGCCACAGGCCGAGGAGGTGGA
 ATTTGGCAGCACGTGGTACAGGAGCTCCCGGCCGCTCTTTTCTGGGCACCCGCTC
 ACGCCTCCTGATGCACATGTACTGGGCAAGGCCTTGGAGGCGGGGCCAAGACTTCTCC
 CTGGACCTCCGCAGCACTGGCATTGCCCCCTCTGGATTGGGGAGCCTCGTGGGACTCAGC
 TGTGTACCCGTTTCAGGGCTGCCTTGAGCGACACGGTGGCGCTGTGGGAGTCCCTGCAG
 CAGCATGGGGAGACCAAGCTACTTCAGGCAGCAGAGGAGAAGTTCACCATCGAGCCTTTC
 AAAGCCAAGTCCCTGAAGGATGTGGAAGACCTGGGAAAGCTTGTGCAGACTCAGAGGACG
 AGAAGTTCCTCGAAGACACAGCTGGGGAGCTCCCTGCTGTTCCGGACCTAAAGAAACTG
 GAGTTTTGCGCTGGGCCCTGTCTCAGGCCCCAGGCTTTCCCAAAGTGGTGGCGGATCCTC
 ACGGCCTTTTCTCCCTGCAGCATCTGGACCTGGATGCGCTGAGTGAGAACAAGATCGGG
 GACGAGGGTGTCTCGCAGCTCTCAGCCACCTTCCCCAGCTGAAGTCTTGGAAACCTC
 AATCTGTCCCAGAACAACATCACTGACCTGGGTGCCTACAAACTCGCCGAGGCCCTGCCT
 TCGCTCGTGCATCCCTGCTCAGGCTAAGCTTGTACAATAACTGCATCTGCGACGTGGGA
 GCCGAGAGCTTGGCTCGTGTGCTTCCGGACATGGTGTCCCTCCGGGTGATGGACGTCCAG
 TACAACAAGTTCACGGCTGCCGGGGCCAGCAGCTCGTGCCAGCCTTCGGAGGTGCTCT
 CATGTGGAGACGCTGGCGATGTGGACGCCACCATCCCATTAGTGTCCAGGAACACCTG
 CAACAACAGGATTCACGGATCAGCCTGAGATGA

Restriction Sites:

Please inquire

ACCN:

NM_000246

Insert Size:

3800 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_000246.2 , NP_000237.1
RefSeq Size:	4661 bp
RefSeq ORF:	3393 bp
Locus ID:	4261
UniProt ID:	P33076
Cytogenetics:	16p13.13
Protein Pathways:	Antigen processing and presentation, Primary immunodeficiency
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) uses an alternate in-frame splice junction at the 5' end of an exon compared to variant 1. The resulting isoform (2) is 1 aa shorter compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>