

Product datasheet for RC222253

CIITA (NM_000246) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CIITA (NM_000246) 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)
ORF Nucleotide Sequence:	>RC222253 representing NM_000246 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGCGTTGGCTCCACGCCCTGCTGGGTCCTACCTGTCAGAGCCCCAAGGCAGCTCACAGTGTGCCA
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CCTGACCGCGTTCTGCTCATCCTAGACGGCTTCGAGGAGCTGGAAGCGCAAGATGGCTTCCTGCACAGCA
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Protein Sequence: >RC222253 representing NM_000246
Red=Cloning site Green=Tags(s)

MRCLAPRPAGSYLSEPPQSSQCATMELGPLLEGGYLELLNSDADPLCLYHFYDQMDLAGEEEIELYSEPD
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 AEVQG KSKQKRPPEELPADLKHWPAPPEPTVVTGSLLVGPVSDCSTLPCLPLPALFNQEPASGQ
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Chromatograms: https://cdn.origene.com/chromatograms/mk8040_h06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

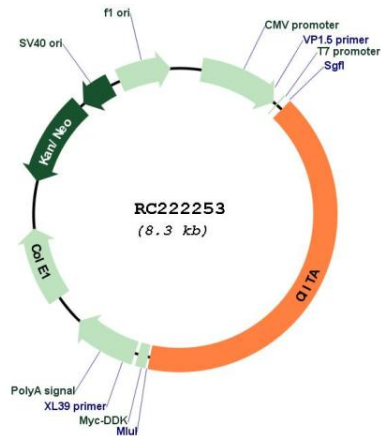


ACCN: NM_000246

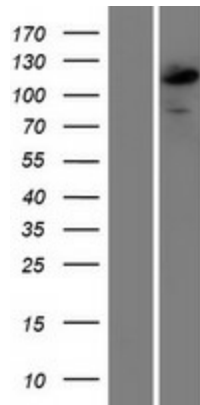
ORF Size: 3390 bp

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_000246.3
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
MW:	123.2 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]

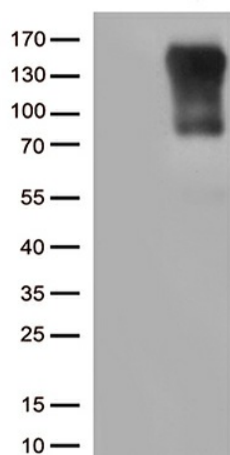
Product images:



Circular map for RC222253



Western blot validation of overexpression lysate (Cat# [LY424845]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222253 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CIITA (Cat# RC222253, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CIITA (Cat# [TA812200])(1:500). Positive lysates [LY424845] (100ug) and [LC424845] (20ug) can be purchased separately from OriGene.