

Product datasheet for RC222253L2

OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

CIITA (NM_000246) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: CIITA (NM_000246) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: CIITA

Synonyms: C2TA; CIITAIV; MHC2TA; NLRA

Mammalian Cell None

Selection:

Vector: pLenti-C-mGFP (PS100071)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RC222253).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





 $[\]ensuremath{^*}$ The last codon before the Stop codon of the ORF.

ACCN: NM_000246

ORF Size: 3390 bp





CIITA (NM_000246) Human Tagged Lenti ORF Clone - RC222253L2

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: <u>NM 000246.2</u>

RefSeq Size:4661 bpRefSeq ORF:3393 bpLocus 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

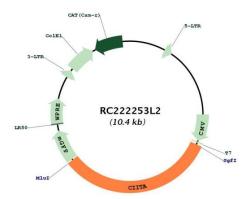
in a coactivator-like fashion. Mutations in this gene have been associated with bare

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

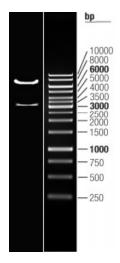
different isoforms have been found for this gene. [provided by RefSeq, Nov 2013]



Product images:



Circular map for RC222253L2



Double digestion of RC222253L2 using Sgfl and Mlul $\,$