# Product datasheet for TF313899

## CIITA Human shRNA Plasmid Kit (Locus ID 4261)

## Product data:

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| **Product Type:** | shRNA Plasmids |
| **Product Name:** | CIITA Human shRNA Plasmid Kit (Locus ID 4261) |
| **Locus ID:** | 4261 |
| **Synonyms:** | C2TA; CIITAIV; MHC2TA; NLRA |
| **Vector:** | pRFP-C-RS (TR30014) |
| **E. coli Selection:** | Chloramphenicol (34 ug/ml) |
| **Mammalian Cell Selection:** | Puromycin |
| **Format:** | Retroviral plasmids |
| **Components:** | CIITA - Human, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 4261). 5µg purified plasmid DNA per construct <br> 29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free. |
| **RefSeq:** | NM_000246, NM_001286402, NM_001286403, NR_104444, NM_000246.1, NM_000246.2, NM_000246.3, NM_001286403.1, NM_001286402.1, BC172348, BM193016, NM_001286403.2 |
| **UniProt ID:** | P33076 |
| **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] |
| **shRNA Design:** | These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service. |

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**Performance Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).