

Product datasheet for KN222253BN

CIITA Human Gene Knockout Kit (CRISPR)

Product data:

Product Type: Knockout Kits (CRISPR)

Format: 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

Donor DNA: mBFP-Neo

Symbol: CIITA Locus ID: 4261

KN222253G1, CIITA gRNA vector 1 in pCas-Guide CRISPR vector (GE100002) Components:

KN222253G2, CIITA gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)

KN222253BND, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is

> designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the

experimental process.

NM 000246, NM 001286402, NM 001286403, NR 104444 RefSeq:

UniProt ID: P33076

Synonyms: C2TA; CIITAIV; MHC2TA; NLRA

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]



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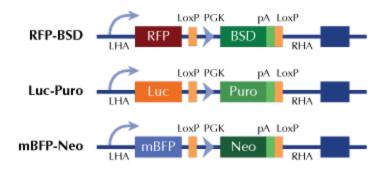
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Product images:

Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter