CIITA Blocking Peptide

PRODUCT OVERVIEW

Product Name	CIITA, Blocking Peptide
Full Product Name	CIITA Peptide
Product Gene Name	CIITA blocking peptide
Product Synonym Names	C2TA; NLRA; MHC2TA; CIITAIV; MHC class II transactivator; CIITA; class II, major histocompatibility complex, transactivator
Form/Format	Liquid
Concentration	200 ug/mL (lot specific)
Preparation and Storage	Store CIITA peptide at -20 degree C, stable for one year.
Antibody/Peptide Pairs	CIITA peptide (MBS151838) is used for blocking the activity of CIITA antibody (MBS151392)
Molecular Weight	101,661 Da
OMIM	phenotype 600005
Species	Human
Buffer	PBS pH 7.2 (10 mM NaH2PO4, 10 mM Na2HPO4, 130 mM NaCl) containing 0.1% bovine serum albumin and 0.02% sodium azide
Location	16 amino acids near the amino terminus of human CIITA.
Applications Tested/Suitable for CIITA blocking peptide	Blocking (BL)
Application Notes for CIITA blocking peptide	CIITA peptide is used for blocking the activity of CIITA antibody.
Related Product Information for CIITA blocking peptide	MBS151838 is a blocking peptide targeting CIITA. Also known as CIITA Peptide.
Other Notes	Small volumes of CIITA blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CIITA. It may not necessarily be applicable to this product.

NCBI GI #	218511957
NCBI GeneID	4261
NCBI Accession #	P33076.2
UniProt Primary Accession #	P33076
UniProt Secondary Accession #	Q29675; Q8SNB8; Q96KL4; A0N0N9; D3DUG0; E9PFE0
UniProt Related Accession #	P33076
NCBI Official Full Name	MHC class II transactivator
NCBI Official Synonym Full Names	class II, major histocompatibility complex, transactivator

NCBI Official Symbol	CIITA
NCBI Official Synonym Symbols	C2TA; NLRA; MHC2TA; CIITAIV
UniProt Protein Name	MHC class II transactivator
Protein Family	MHC class II transactivator
UniProt Gene Name	CIITA
UniProt Synonym Gene Names	MHC2TA; CIITA
UniProt Entry Name	C2TA_HUMAN
NCBI Protein Information	MHC class II transactivator; NLR family, acid domain containing; MHC class II transactivator type III; nucleotide-binding oligomerization domain, leucine rich repeat and acid domain containing
NCBI Summary for CIITA	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]
UniProt Comments for CIITA	CIITA: a non-DNA binding transactivator that functions both in constitutive and inducible MHC Class II expression. Defects are a cause of bare lymphocyte syndrome type II (BLS II), a form of severe combined immunodeficiency disease (SCID) characterized by a profound defect in constitutive and interferon-gamma induced MHC II expression, an absence of cellular and humoral T-cell response to antigen challenge, hypogammaglobulinemia and impaired antibody production. Protein type: DNA-binding; EC 2.7.11.1; Transcription, coactivator/corepressor Chromosomal Location of Human Ortholog: 16p13 Cellular Component: nucleoplasm; PML body Molecular Function: protein C-terminus binding; protein binding; transcription activator binding; GTP binding; DNA binding; transcription coactivator activity; protein complex binding; transferase activity, transferring acyl groups; kinase activity; ATP binding Biological Process: response to antibiotic; transcription, DNA-dependent; negative regulation of collagen biosynthetic process; cytokine and chemokine mediated signaling pathway; positive regulation of transcription, DNA-dependent; positive regulation of MHC class II biosynthetic process; positive regulation of transcription from RNA polymerase II promoter; positive regulation of MHC class I biosynthetic process; immune response; negative regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent; phosphorylation Disease: Rheumatoid Arthritis; Bare Lymphocyte Syndrome, Type Ii
Research Articles on CIITA	**1.** our findings support previous data that variability in the CIITA gene affects MS risk, but also that the effect is modulated by MS-associated HLA haplotypes.
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