

MHC2TA (MHC class II transactivator)

Identity

Other names	C2TA
	CIITA
Hugo	<u>MHC2TA</u>
Location	16p13

DNA/RNA

Transcription 6.7 kb mRNA; coding sequence: 3392 bp

Protein

Description	1130 amino acids
Function	non-DNA-binding transcriptional coactivator; highly regulated; IFN-gamma-inducible; transactivator of the major histocompatibility complex (MHC) class II genes, herein the name; DM and Ii (molecules associated to MHC class II) are also regulated by MHC2TA; MHC2TA also transactivates MHC class I; lymphoid cells of MHC2TA-null mice do not express MHC class II

Implicated in

Entity	t(3;16)(q27;p13)/ BCL6
Disease	non-Hodgkin lymphoma
Prognosis	yet unknown (only 1 case available with certainty)
Hybrid/Mutated Gene	5' MHC2TA - 3' BCL6; MHC2TA fuses with the second exon of BCL6
Abnormal Protein	no fusion protein, but promoter exchange
Oncogenesis	BCL6 is a transcription repressor; it is supposed that substitution of the promoter of BCL6 may be responsible for BCL6 deregulation
Entity	bare lymphocyte syndrome (BLS)
Note	at least five complementation groups
Disease	severe immunodeficiency due to failure to express MHC class II genes

External links

	Nomenclature
Hugo	MHC2TA
	Cards
	Genomic and cartography
	Gene and transcription
	Protein : pattern, domain, 3D structure
	Protein Interaction databases
	Polymorphism : SNP, mutations, diseases
	General knowledge
	Other databases
	Probes
Probe	MHC2TA Related clones (RZPD - Berlin)
	PubMed

Bibliography

Complementation cloning of an MHC class II transactivator mutated in hereditary MHC class II deficiency (or bare lymphocyte syndrome)

Steimle V, Otten LA, Zufferey M, Mach B.
Cell 1993; 75: 135-146.
Medline [94006536](#)

CIITA stimulation of transcription factor binding to major histocompatibility complex class II and associated promoters in vivo.

Wright KL, Chin KC, Linhoff M, Skinner C, Brown JA, Boss JM, Stark GR, Ting JPY.
Proc Natl Acad Sci USA 1998; 95: 6267-6272.

The class II transactivator CIITA is a transcriptional integrator.

Fontes JD, Kanazawa S, Nekrep N, Peterlin BM.
Microbes Infect 1999; 1: 863-869.
Medline [20083000](#)

Identification of heterologous translocation partner genes fused to the BCL6 gene in diffuse large B-cell lymphomas: 5'-RACE and LA - PCR analyses of biopsy samples.

Yoshida S, Kaneita Y, Aoki Y, Seto M, Mori S, Moriyama M.
Oncogene 1999; 18: 7994-7999.
Medline [20105774](#)

CIITA is a transcriptional coactivator that is recruited to MHC class II promoters by multiple synergistic interactions with an enhanceosome complex.

Masternak K, Muhlethaler-Mottet A, Villard J, Zufferey M, Steimle V, Reith W.
Genes Dev 2000; 14: 1156-1166.
Medline [20270031](#)

Synergistic induction of HLA class I expression by RelA and CIITA.

Girdlestone J.
Blood 2000; 95: 3804-3808.

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