10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CIITA Picoband Antibody

Catalog # ABO12681

Product Information

Application	WB, IHC-P
Primary Accession	P33076
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for MHC class II transactivator(CIITA) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	4261
Other Names	MHC class II transactivator, CIITA, 2.3.1.-, 2.7.11.1, CIITA, MHC2TA
Calculated MW	123415
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	MHC class II transactivator;CIITA;2.3.1.-;2.7.11.1;CIITA;MHC2TA;
Tissue Specificity	MHC class II transactivator
Source	Eukaryota
Protein Name	Essential for transcriptional activity of the HLA class II promoter; activation is via the proximal promoter. No DNA binding of in vitro translated CIITA was detected. May act in a coactivator-like fashion through protein-protein interactions by contacting factors binding to the proximal MHC class II promoter, to elements of the transcription machinery, or both. Alternatively it may activate HLA class II transcription by modifying proteins that bind to the MHC class II promoter. Also mediates enhanced MHC class I transcription; the promoter element requirements for CIITA-mediated transcription are distinct from those of constitutive MHC class I transcription, and CIITA can functionally replace TAF1 at these genes. Exhibits intrinsic GTP-stimulated acetyltransferase activity. Exhibits serine/threonine protein kinase activity: can phosphorylate the TFIID component TAF7, the RAP74 subunit of the general transcription factor TFIIF, histone H2B at 'Ser-37' and other histones

	(in vitro). .
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human CIITA recombinant protein (Position: E945-R1130). Human CIITA shares 84.4% amino acid (aa) sequence identity with mouse CIITA.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	CIITA (HGNC:7067)
Synonyms	MHC2TA
Function	Essential for transcriptional activity of the HLA class II promoter; activation is via the proximal promoter (PubMed:16600381, PubMed:17493635, PubMed:7749984, PubMed:8402893, PubMed:40608405). Does not bind DNA (PubMed:16600381, PubMed:17493635, PubMed:7749984, PubMed:8402893). May act in a coactivator-like fashion through protein- protein interactions by contacting factors binding to the proximal MHC class II promoter, to elements of the transcription machinery, or both PubMed:8402893, PubMed:7749984, (PubMed:16600381, PubMed:17493635). Alternatively it may activate HLA class II transcription by modifying proteins that bind to the MHC class II promoter (PubMed:16600381, PubMed:17493635, PubMed:7749984, PubMed:8402893). Also mediates enhanced MHC class I transcription; the promoter element requirements for CIITA-mediated transcription are distinct from those of constitutive MHC class I transcription, and CIITA can functionally replace TAF1 at these genes. Activates CD74 transcription (PubMed:32855215). Exhibits intrinsic GTP-stimulated acetyltransferase activity (PubMed:11172716). Exhibits serine/threonine protein kinase activity: can phosphorylate the TFIID component TAF7, the RAP74 subunit of the general transcription factor TFIIF, histone H2B at 'Ser-37' and other histones (in vitro) (PubMed:24036077). Has antiviral activity against Ebola virus and coronaviruses, including SARS-CoV-2 (PubMed:32855215). Induces resistance by up-regulation of the p41 isoform of CD74, which blocks cathepsin-mediated cleavage of viral glycoproteins, thereby preventing viral fusion (PubMed:32855215).
Cellular Location	Nucleus. Nucleus, PML body. Note=Recruited to PML body by PML

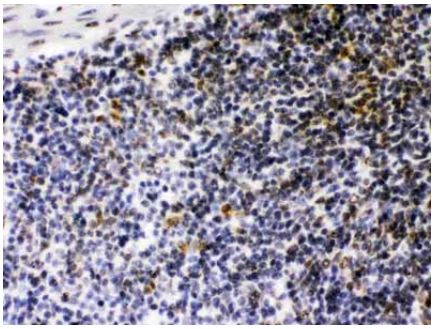
Background

CIITA is a human gene which is mapped to 16p13. 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. Also

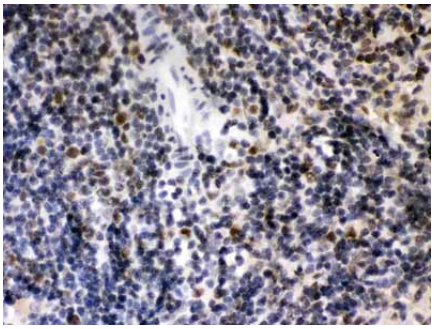
Images



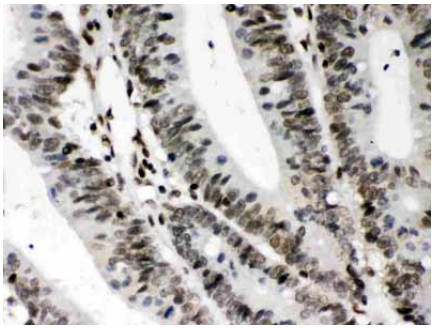
Western blot analysis of CIITA expression in rat thymus extract (lane 1), mouse thymus extract (lane 2) and MCF-7 whole cell lysates (lane 3). CIITA at 123KD was detected using rabbit anti- CIITA Antigen Affinity purified polyclonal antibody (Catalog # ABO12681) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .



CIITA was detected in paraffin-embedded sections of mouse spleen tissues using rabbit anti- CIITA Antigen Affinity purified polyclonal antibody (Catalog # ABO12681) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



CIITA was detected in paraffin-embedded sections of rat spleen tissues using rabbit anti- CIITA Antigen Affinity purified polyclonal antibody (Catalog # ABO12681) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



CIITA was detected in paraffin-embedded sections of human intestinal cancer tissues using rabbit anti- CIITA Antigen Affinity purified polyclonal antibody (Catalog # ABO12681) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.