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Anti-CIITA aa 1-333 (RABBIT) Antibody
CIITA Antibody
Catalog # ASR3687

Specification

Anti-CIITA aa 1-333 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**Anti-CIITA antibody has been tested in western blot. For immunoblotting a 1:500 dilution is recommended. Researchers should determine optimal titers for other applications.**
Physical State	**Liquid (sterile filtered)**
Immunogen	**The immunogen used for this study was a bacterially produced recombinant FLAG-CIITA corresponding to amino acids 1 through 333 of the human protein.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-CIITA aa 1-333 (RABBIT) Antibody - Additional Information

Gene ID 4261

Other Names
4261

Purity
Anti-CIITA antibody was prepared from monospecific antiserum by delipidation and defibrination.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-CIITA aa 1-333 (RABBIT) Antibody - 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). 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

Anti-CIITA aa 1-333 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CIITA aa 1-333 (RABBIT) Antibody - Images

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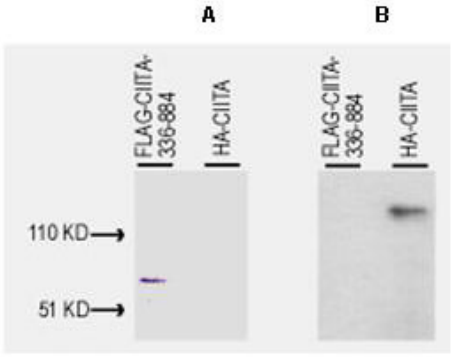

Western blot of Anti-CIITA (1-333) antibody, generated by immunization with bacterially produced FLAG-CIITA aa 1-333, was tested by western blot against lysates of Cos-7 cells after transient transfection, separately, with pcDNA3-FLAG-CIITA-336-884 and pcDNA3-HA-CIITA. For transfection, Fugene 6 (Roche) was used according to the manufacturer's instructions for a 6-well plate format. Cells were lysed 24 h post-transfection in 200 µL of 1x SDS-sample buffer, heated at 96°C for 5', and vortexed for 30 sec. Samples (10 µL each) were separated on a 12% SDS-PAGE gel and transferred to PVDF (Millipore) followed by blocking for 45' using TTBS supplemented with 5% non-fat dry milk. All incubations were performed at room temperature. In panel A, both samples on PVDF were incubated with 10 µg/mL mouse anti-FLAG antibody (Sigma) for 45'. After 5X washes with TTBS, reaction with ALP rabbit anti-mouse IgG at 200 ng/mL proceeded for 45' following again by washing as before. The blot was developed using BCIP/NBT. This blot demonstrates that FLAG-CIITA-336-884 was successfully over-expressed in the Cos-7 cells. In panel B, both samples on PVDF were incubated with a 1:500 dilution of Rockland's anti-CIITA (1-333) for 45'. After 5X washes with TTBS, reaction with HRP goat anti-rabbit IgG at 10 ng/mL proceeded for 45' following again by washing as before. The membrane was covered with Pico West Substrate solution (Pierce) for 5' and was then placed between the two layers of a standard sheet protector. Kodak O-MAT film was exposed to the blot for 30 sec and was immediately developed. The lane containing the lysate of pcDNA3-HA-CIITA transfected cells contains a single band at ~130 kDa molecular weight, whereas the lane containing lysate from pcDNA3-FLAG-CIITA-336-884 transfected cells shows no reactivity. This blot demonstrates that anti-CIITA (1-333) is specific for amino acids 1-333 of CIITA and that the antibody is not cross reactive with the FLAG portion of the immunogen.

Anti-CIITA aa 1-333 (RABBIT) Antibody - Background

Anti-CIITA antibody detects CIITA. The transactivator CIITA regulates basal and interferon-induced expression of Major Histocompatibility Complex class II genes. CIITA restores expression of all MHC class II gene expression in mutant cells and corrects regulatory defects of MHC class II genes. Antibodies to this transactivator are useful in the study of diseases of pathological MHC class II expression. Antigen can be obtained from Raji cell lysates. Typically levels of CIITA expression are too low to detect endogenous levels of protein expression. Transiently transfected cells are usually employed to study this transcription factor.