

Datasheet for 100-401-194**RFX5 Antibody****Overview**

Description:	Anti-RFX5 (RABBIT) Antibody - 100-401-194
Item No.:	100-401-194
Size:	100 µL
Applications:	WB, ChIP, EMSA
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	RFX5 Antibody detects the RFX5 protein. Regulatory factor X subunit 5 (RFX5) is a member of a family of DNA-binding proteins that share a novel and highly characteristic DNA-binding domain called the RFX motif. It mediates cooperative binding between RFX and NF-Y, recognizes X-boxes, and activates transcription from class II MHC promoters. RFX5 mutations are seen in cases of a severe immunodeficiency syndrome called MHC-II deficiency (also known as bare lymphocyte syndrome (BLS)). These mutations prevent the RFX complex from binding to the X box in MHC-II promoters, resulting in a lack of MHC-II expression. Anti-RFX5 antibody is ideal for investigators involved in cytokines and growth factor research.
Synonyms:	rabbit anti-RFX5 Antibody, DNA binding protein RFX5 antibody, Influences HLA class II expression antibody, Regulatory factor X 5 antibody, Regulatory factor X subunit 5 antibody, MHC
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	RFX5
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

Immunogen:	RFX5 peptide corresponding to amino acids 320 to 494 of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	Anti-RFX5 Antibody was prepared by repeated immunizations of an RFX5 peptide conjugate and purified as monospecific antiserum after delipidation and defibrination.
Relevant Links:	• NCBI - CA072162.1 • UniProtKB - P48382 • GeneID - 5993

Application Details

Tested Applications:	WB
Suggested Applications:	ChIP, EMSA (Based on references)
Application Note:	Anti-RFX5 Antibody was tested by immunoblot and found to be reactive against RFX5 (aa 320 to 494) from a variety of fibroblast and B-cell lysates at a dilution of 1:1,000 followed by reaction with Peroxidase conjugated Affinity Purified anti-Rabbit IgG. Anti-RFX5 (aa 320 to 494) detects a 75 kDa band by immunoblot for human RFX5. Anti-RFX5 Antibody was also tested in a gel supershift assay and found to be reactive against RFX5 complexes using 0.5 to 1.0 µl per assay. Specific conditions should be optimized by user. Other assays should be optimized by researcher.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
WB:	1:500 - 1:3,000

Formulation

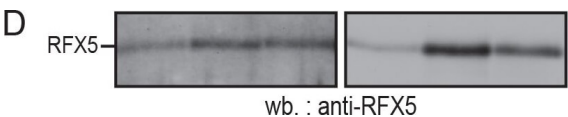
Physical State:	Liquid (sterile filtered)
Concentration:	85 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

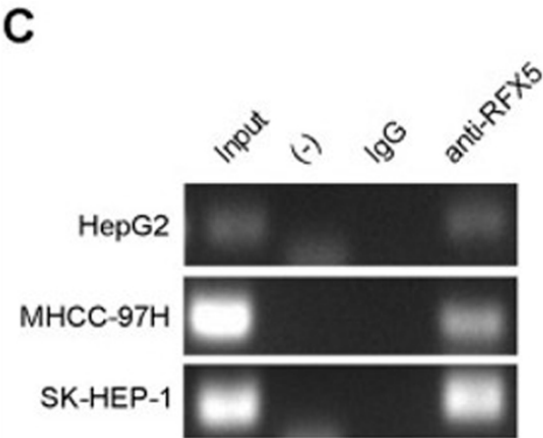
Shipping Condition:	Dry Ice
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Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
CIITA-FIII interacts more efficiently with protein partners. CIITA was immunoprecipitated from protein extracts of HEK293-EBNA cells stably transfected with empty EBS-NPL vector (lanes 1, 4), CIITA-FIII (lanes, 2, 5), or CIITA-Δ36 (lanes 3, 6) respectively. Input controls (lanes 1–3) or immunoprecipitated material (lanes 4–6) were separated by SDS-PAGE (8% gel), blotted and analyzed by western blotting. The membrane was cut in half and the upper part was probed with antibodies for CIITA (A), stripped, and reprobed consecutively with antibodies for p300/p400 (antibody RW144) (B), RFX (D), and Hsp90 as a control (F), the lower part was hybridized with antibodies against TBP (C), stripped and reprobed for S8 using Reliablot secondary reagents (E). For input controls longer exposures are shown, with the exception of Hsp90. Ratios of band intensities of bands in lane 5 versus lane 6 are shown on the right. Figure provided by CiteAb. Source: PLoS One, PMID: 26871568.



Western Blot
RFX5 binds to the promoter region and activates transcription of the KDM4A genes in HCC cells. (C) Immunoprecipitated DNA fragments produced by anti-RFX5 were subjected to PCR assay with primers that can detect the RFX5 binding peak site in the KDM4A promoter region which was determined by ChIP-seq. Consistent with ChIP-seq data, KDM4A promoter region was detected by PCR in the elution of anti-RFX5 in SK-HEP-1, MHCC-97H, and HepG2 cells, but not in the elution of control IgG (normal rabbit IgG p/n 011-0102). Figure 2. PMID: 32883983.

References

- Chen, DB et al. RFX5 promotes the progression of hepatocellular carcinoma through transcriptional activation of KDM4A. *Scientific Reports* (2020)
- Beaulieu et al. Degradation, Promoter Recruitment and Transactivation Mediated by the Extreme N-Terminus of MHC Class II Transactivator CIITA Isoform III. *PLOS One* (2016)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.