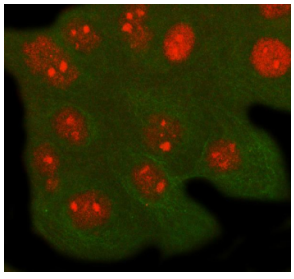
RFXANK Antibody / Regulatory factor X-associated ankyrin-containing protein (FY13194)

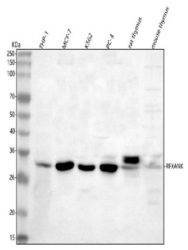
Catalog No.	Formulation	Size
FY13194	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

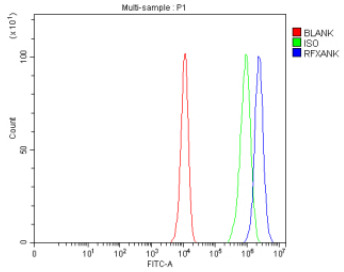
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O14593
Localization	Nuclear
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This RFXANK antibody is available for research use only.



Immunofluorescent staining of RFXANK using anti-RFXANK antibody (red) and anti-Beta Tubulin antibody (green). RFXANK was detected in immunocytochemical section of cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-RFXANK antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG and DyLight 488 Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of RFXANK using anti-RFXANK antibody. Lane 1: human THP-1 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human PC-3 whole cell lysates, Lane 5: rat thymus tissue lysates, Lane 6: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RFXANK antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. The expected molecular weight of RFXANK is ~28 kDa.



Flow Cytometry analysis of PC-3 cells using anti-RFXANK antibody. Overlay histogram showing PC-3 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RFXANK antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Description

RFXANK antibody detects Regulatory factor X-associated ankyrin-containing protein, a transcriptional regulator essential for major histocompatibility complex (MHC) class II gene expression. The UniProt recommended name is Regulatory factor X-associated ankyrin-containing protein (RFXANK). This nuclear protein forms part of the RFX complex with RFX5 and RFXAP, which binds to X-box promoter elements and activates MHC class II transcription.

Functionally, RFXANK antibody identifies a 260-amino-acid nuclear protein containing multiple ankyrin repeats that mediate protein-protein interactions within the RFX complex. RFXANK acts as a scaffold for assembling the class II transactivator (CIITA) and other coactivators at MHC class II promoters, enabling antigen-presenting cells to express HLA-D gene products critical for immune recognition.

The RFXANK gene is located on chromosome 19p12 and is highly expressed in antigen-presenting cells such as B lymphocytes, macrophages, and dendritic cells. Its function is indispensable for adaptive immune activation and T-cell mediated responses.

Pathologically, mutations in RFXANK cause bare lymphocyte syndrome type II (BLS II), a severe immunodeficiency characterized by loss of MHC class II expression and defective antigen presentation. Research using RFXANK antibody supports studies in transcriptional regulation, immunodeficiency, and antigen presentation biology.

RFXANK antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect transcriptional regulators involved in immune gene activation. NSJ Bioreagents provides RFXANK antibody reagents optimized for immunology, transcription, and genetic disease research.

Structurally, Regulatory factor X-associated ankyrin-containing protein contains tandem ankyrin repeats and a nuclear localization signal that mediate its assembly into DNA-binding complexes. This antibody enables investigation of RFXANK's role in immune gene transcription and MHC regulation.

Application Notes

Optimal dilution of the RFXANK antibody should be determined by the researcher.

Immunogen

E.coli-derived human RFXANK recombinant protein (Position: E29-E260) was used as the immunogen for the RFXANK antibody.

Storage

After reconstitution, the RFXANK antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.