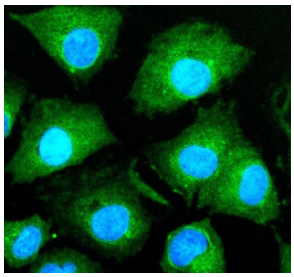
HJURP Antibody / Holliday junction recognition protein (FY12913)

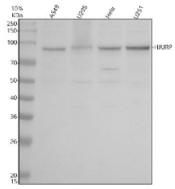
Catalog No.	Formulation	Size
FY12913	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

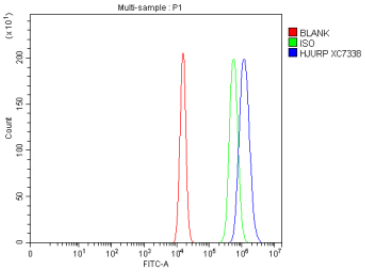
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8NCD3
Localization	Nucleus, Nucleolus, Cytoplasm
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry/Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This HJURP antibody is available for research use only.



Immunofluorescent staining of HJURP using anti-HJURP antibody (green). HJURP was detected in an immunocytochemical section of cells. 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-HJURP antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of HJURP using anti-HJURP antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human whole cell lysates, Lane 2: human U2OS whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human U251 whole cell 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-HJURP 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 an ECL Plus Western Blotting Substrate. The expected molecular weight of HJURP is ~84 kDa.



Flow Cytometry analysis of U2OS cells using anti-HJURP antibody. Overlay histogram showing U2OS 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-HJURP 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Description

HJURP antibody detects Holliday junction recognition protein, a histone chaperone responsible for depositing the centromere-specific histone H3 variant CENP-A at centromeres during DNA replication. Encoded by the HJURP gene on chromosome 2q37.1, this protein is essential for centromere identity and chromosome segregation fidelity. HJURP functions as a dedicated assembly factor that ensures proper incorporation of newly synthesized CENP-A into centromeric nucleosomes during the cell cycle.

Structurally, HJURP is a 748-amino-acid nuclear protein of approximately 80 kilodaltons containing an N-terminal Scm3-like domain that binds CENP-A/H4 heterodimers and a C-terminal domain responsible for centromere targeting through interaction with Mis18 complex components. HJURP localizes exclusively to centromeres during late telophase and early G1 phase, coordinating with the Mis18alpha/beta complex to mediate chromatin assembly and maintain centromere identity.

The HJURP antibody is widely used in cell cycle, chromatin assembly, and cancer research to study centromere formation, histone variant deposition, and chromosomal stability. Western blot analysis detects an 80 kilodalton band corresponding to HJURP, while immunofluorescence reveals discrete nuclear foci at centromeric regions. This antibody provides a key tool for analyzing chromosome segregation fidelity and CENP-A deposition dynamics.

Functionally, HJURP acts as the exclusive chaperone for CENP-A nucleosome assembly, ensuring the maintenance of centromeric chromatin identity across cell divisions. Loss or depletion of HJURP leads to chromosome mis-segregation, aneuploidy, and genomic instability, hallmark features of tumorigenesis. Elevated HJURP expression has been reported in various cancers and correlates with poor prognosis due to its role in promoting proliferation and mitotic progression. The HJURP antibody supports studies on chromatin inheritance, mitotic regulation, and epigenetic maintenance of centromeres. NSJ Bioreagents validates this antibody for its applications, providing a dependable reagent for centromere biology and mitotic research.

Application Notes

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

Immunogen

E.coli-derived human HJURP recombinant protein (Position: R6-K594) was used as the immunogen for the HJURP antibody.

Storage

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