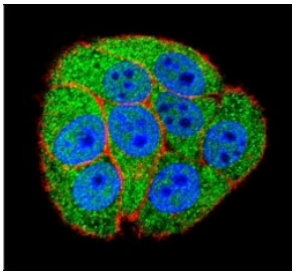
XRCC5 Antibody for IF / Ku80 Immunofluorescence Antibody (F41815)

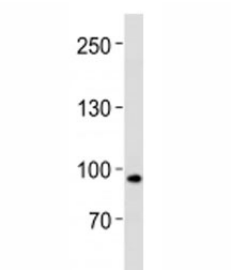
Catalog No.	Formulation	Size
F41815-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F41815-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

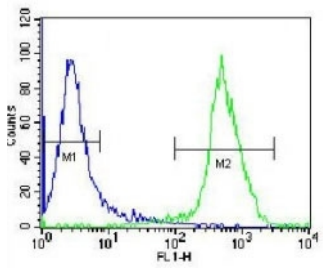
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P13010
Applications	Western blot: 1:1000 Immunofluorescence: 1:10-1:50 Flow Cytometry: 1:10-1:50
Limitations	This XRCC5 antibody is available for research use only.



XRCC5 Antibody for IF HeLa Cells. Confocal immunofluorescence analysis of paraformaldehyde-fixed human HeLa cells using a rabbit polyclonal XRCC5 antibody. The antibody signal (green) shows strong cytoplasmic staining with clear nuclear localization of Ku80 (XRCC5), highlighting both chromatin-associated and non-chromatin-bound protein pools. Actin filaments are labeled with phalloidin (red), and nuclei are counterstained with DAPI (blue). The staining pattern demonstrates spatial distribution of XRCC5 and supports its role as a nuclear DNA repair protein with dynamic intracellular localization.



XRCC5 antibody western blot analysis in human placenta tissue lysate. Predicted molecular weight ~80kDa.



XRCC5 antibody flow cytometric analysis of Jurkat cells (green) compared to a negative control (blue). FITC-conjugated donkey-anti-rabbit secondary Ab was used for the analysis.

Description

X-ray repair cross-complementing protein 5 (XRCC5), also known as Ku80, is a DNA repair factor that plays a central role in non-homologous end joining and is widely used as a marker for nuclear DNA damage response pathways. XRCC5 Antibody for IF is specifically suited for immunofluorescence applications that require high-resolution visualization of protein localization within cells, enabling researchers to examine the spatial distribution of XRCC5 across nuclear and cytoplasmic compartments. As part of the Ku heterodimer with XRCC6, XRCC5 binds DNA double-strand breaks and coordinates recruitment of repair machinery, making its localization patterns highly relevant to cellular stress and genome integrity.

XRCC5 antibody, also referred to as Ku80 antibody, is particularly valuable in immunofluorescence imaging where subcellular distribution provides critical biological insight. XRCC5 is predominantly nuclear under basal conditions, where it associates with chromatin and participates in DNA repair. However, cytoplasmic staining may also be observed depending on cell type, fixation conditions, and cellular state, reflecting dynamic protein distribution and non-DNA-bound pools. This XRCC5 Antibody for IF enables clear visualization of both nuclear enrichment and cytoplasmic signal, supporting detailed interpretation of protein localization in single cells.

The rabbit polyclonal XRCC5 antibody supports strong performance in fluorescence microscopy and confocal imaging, where signal clarity and spatial resolution are essential. In these applications, XRCC5 staining often appears as diffuse to punctate nuclear signal with additional cytoplasmic distribution, allowing researchers to assess changes in localization under conditions such as DNA damage, cell cycle progression, or cellular stress. The ability to distinguish nuclear versus cytoplasmic XRCC5 signal makes this antibody particularly useful for studies focused on protein trafficking, chromatin association, and intracellular redistribution.

XRCC5 is a member of the DNA repair protein family and functions in coordination with DNA-dependent protein kinase to facilitate DNA end joining. Its defined nuclear role combined with dynamic intracellular distribution makes it well suited for immunofluorescence-based analysis of spatial protein behavior. XRCC5 Antibody for IF provides a robust tool for detecting Ku80 expression and visualizing its localization within cells, supporting research that depends on accurate interpretation of subcellular staining patterns.

For studies focused on XRCC6-associated DNA end recognition and double-strand break repair signaling, see our Ku70 Antibody / DNA End Binding Protein Antibody page featuring IHC and western blot validation data across multiple tumor types and human cell lines.

Application Notes

Titration of the XRCC5 Antibody for IF / Ku80 Immunofluorescence Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 424-450 from the human protein was used as the immunogen for this XRCC5 Antibody for IF / Ku80 Immunofluorescence Antibody.

Storage

Aliquot the XRCC5 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Ku80 antibody, XRCC5 immunofluorescence antibody, Ku80 IF antibody, XRCC5 nuclear staining antibody, Ku DNA repair protein antibody

Copyright © NSJ Bioreagents. All rights reserved.