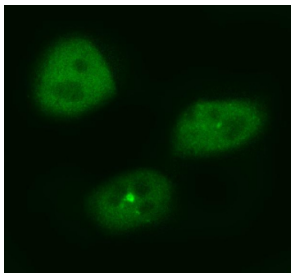
# HASPIN Antibody / Serine/threonine-protein kinase haspin (FY12349)

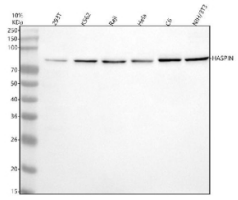
| Catalog No. | Formulation | Size |
|---|---|---|
| FY12349 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

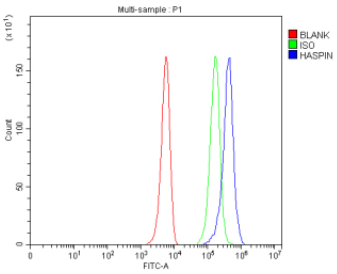
| | |
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Lyophilized |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q8TF76 |
| **Localization** | Nuclear |
| **Applications** | Western Blot : 0.25-0.5ug/ml<br>Immunocytochemistry/Immunofluorescence : 5ug/ml<br>Flow Cytometry : 1-3ug/million cells<br>ELISA : 0.1-0.5ug/ml |
| **Limitations** | This HASPIN antibody is available for research use only. |



Immunofluorescent staining of HASPIN using anti-HASPIN antibody (green). HASPIN 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-HASPIN 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. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of HASPIN using anti-HASPIN antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human 293T whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human Raji whole cell lysates, Lane 4: human Hela whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse NIH/3T3 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-HASPIN 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 HASPIN is ~88 kDa.




Flow Cytometry analysis of K562 cells using anti-HASPIN antibody. Overlay histogram showing K562 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-HASPIN 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

The HASPIN antibody targets Serine/threonine-protein kinase haspin, a cell cycle-regulated kinase encoded by the GSG2 gene. Haspin is best known for phosphorylating histone H3 at threonine 3 (H3T3ph), a key mitotic modification that recruits the chromosomal passenger complex (CPC) to centromeres and ensures proper chromosome alignment during mitosis. The HASPIN antibody provides a critical reagent for investigating chromatin dynamics, mitotic regulation, and cell division fidelity.

Serine/threonine-protein kinase haspin is an atypical protein kinase with unique structural features distinguishing it from conventional kinase families. It remains active during mitosis and localizes to chromatin, where it marks centromeric regions to coordinate kinetochore function. The HASPIN antibody allows visualization of its distribution within dividing cells and quantification of total or active forms. This enables assessment of how Haspin integrates chromatin modification with spindle checkpoint signaling to maintain genomic stability.

Phosphorylation of histone H3 by Haspin serves as a molecular signal that recruits the Aurora B-containing CPC complex, which is essential for correcting improper microtubule-kinetochore attachments. Loss of Haspin activity disrupts chromosome segregation and leads to aneuploidy. The HASPIN antibody has therefore become a standard reagent for cell cycle and chromosome biology research, particularly in studies of mitotic kinase cascades and epigenetic checkpoint control.

In addition to its role in mitosis, Serine/threonine-protein kinase haspin has been implicated in spermatogenesis and embryonic development. Its expression in germ cells suggests functions in chromatin condensation and meiotic progression. The HASPIN antibody supports examination of these developmental contexts, providing insights into how histone phosphorylation contributes to chromatin organization beyond mitosis.

Given the importance of Haspin in maintaining genomic stability, it has emerged as a potential target for anticancer therapy. Inhibitors that block its kinase activity sensitize tumor cells to mitotic stress and disrupt proliferation. Researchers use the HASPIN antibody to evaluate target engagement and monitor cellular responses to Haspin inhibition. NSJ Bioreagents provides this antibody for reproducible performance across western blot, immunofluorescence, and immunohistochemistry assays. By enabling accurate detection of Serine/threonine-protein kinase haspin, this reagent

supports the exploration of chromatin regulation, cell cycle control, and therapeutic targeting of mitotic kinases.

## Application Notes

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

## Immunogen

E.coli-derived human GSG2/HASPIN recombinant protein (Position: R86-K798) was used as the immunogen for the HASPIN antibody.

## Storage

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