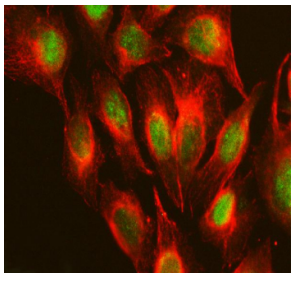
# RPS19BP1 Antibody / Ribosomal protein S19-binding protein 1 (FY12727)

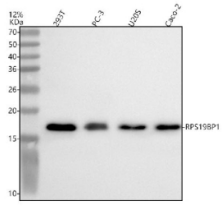
| Catalog No. | Formulation | Size |
|---|---|---|
| FY12727 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

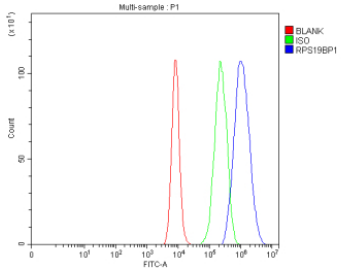
| | |
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human |
| **Format** | Lyophilized |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q86WX3 |
| **Localization** | Nucleus, Nucleolus |
| **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 RPS19BP1 antibody is available for research use only. |



Immunofluorescent staining of RPS19BP1 using anti-RPS19BP1 antibody (green) and anti-Beta Tubulin antibody (red). RPS19BP1 was detected in an immunocytochemical section of U2OS 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-RPS19BP1 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG and Cy3 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 RPS19BP1 using anti-RPS19BP1 antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human 293T whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human U20S whole cell lysates, Lane 4: human Caco-2 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-RPS19BP1 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 RPS19BP1 is ~15 kDa.




Flow Cytometry analysis of CACO-2 cells using anti-RPS19BP1 antibody. Overlay histogram showing CACO-2 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-RPS19BP1 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

RPS19BP1 antibody detects Ribosomal protein S19-binding protein 1 (also known as RPS19BP1 or CGI-96), a conserved nucleolar protein implicated in ribosome biogenesis, RNA processing, and cell proliferation. Encoded by the RPS19BP1 gene on chromosome 22q13.2, this protein binds ribosomal protein S19 and possibly other ribosomal components, assisting in pre-rRNA maturation and ribosome assembly. RPS19BP1 contains coiled-coil and low-complexity regions that may mediate protein-protein interactions within the nucleolus. Although initially identified as a ribosome-associated factor, emerging evidence suggests roles in DNA repair and RNA metabolism.

RPS19BP1 is predominantly localized to the nucleolus and nucleoplasm, where it contributes to the assembly of ribosomal subunits and maintenance of rRNA transcription. Depletion of RPS19BP1 results in reduced 40S ribosomal subunit formation and impaired protein synthesis. Given the central role of ribosome biogenesis in cell growth, dysregulation of RPS19BP1 affects proliferation and stress response pathways. The protein has been linked to hematopoietic development, as mutations or altered expression may influence erythropoiesis through its association with RPS19, a protein mutated in Diamond-Blackfan anemia.

The RPS19BP1 antibody is used in molecular biology and hematology research to study nucleolar function, ribosomal assembly, and cell growth control. Western blot analysis identifies a 58 kilodalton band corresponding to RPS19BP1, while immunofluorescence demonstrates strong nucleolar staining patterns. In proliferating cells, RPS19BP1 colocalizes with fibrillarin and other rRNA processing factors. Because nucleolar integrity is sensitive to stress, this antibody is also applied in experiments assessing nucleolar stress and its effects on p53 stabilization.

Beyond ribosome biogenesis, RPS19BP1 may have additional regulatory roles in chromatin remodeling and transcriptional control. Its interaction network includes several chromatin-binding and RNA-processing proteins. Aberrant expression of RPS19BP1 has been noted in certain cancers, linking ribosomal stress to tumorigenesis. The RPS19BP1 antibody therefore provides an essential tool for investigating nucleolar function, ribosomal disorders, and the interface between protein synthesis and cell cycle control. NSJ Bioreagents offers this antibody validated for reliable detection of RPS19BP1 in diverse experimental systems.

## Application Notes

Optimal dilution of the RPS19BP1 antibody should be determined by the researcher.

## Immunogen

E.coli-derived human RPS19BP1 recombinant protein (Position: M1-S136) was used as the immunogen for the RPS19BP1 antibody.

## Storage

After reconstitution, the RPS19BP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.