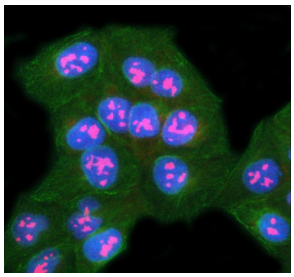
SURF6 Antibody / Surfeit locus protein 6 (FY13209)

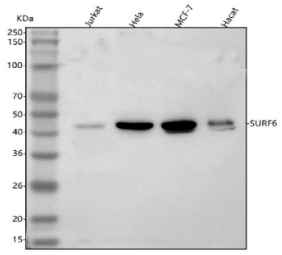
Catalog No.	Formulation	Size
FY13209	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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	O75683
Localization	Nucleus, Nucleolus
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This SURF6 antibody is available for research use only.



Immunofluorescent staining of SURF6 using anti-SURF6 antibody (red) and anti-Beta Tubulin antibody (green). SURF6 was detected in immunocytochemical section of U2OS 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-SURF6 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG and FITC Conjugated Goat Anti-Mouse IgG were 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 SURF6 using anti-SURF6 antibody. Lane 1: human Jurkat whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human Hacat 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-SURF6 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 SURF6 is ~41 kDa.

Description

SURF6 antibody detects Surfeit locus protein 6, a nucleolar protein involved in ribosome biogenesis and pre-rRNA processing. The UniProt recommended name is Surfeit locus protein 6 (SURF6). This evolutionarily conserved nucleolar factor functions as a scaffold for ribonucleoprotein complex assembly during early steps of ribosome formation.

Functionally, SURF6 antibody identifies a 360-amino-acid protein localized to the granular component of the nucleolus, where it associates with pre-rRNA transcripts and ribosomal assembly intermediates. SURF6 interacts with fibrillarin and nucleolin, facilitating pre-rRNA maturation and 60S ribosomal subunit formation. Its RNA-binding capacity and nucleolar localization signal make it an essential factor for ribosome production and nucleolar organization.

The SURF6 gene is located on chromosome 9q34.2 and is expressed ubiquitously, with high levels in proliferating and metabolically active cells. Expression correlates with cellular growth rate, reflecting its role in ribosome synthesis and protein translation capacity.

Pathologically, dysregulation of SURF6 expression has been linked to oncogenesis and stress response modulation. Overexpression is observed in various cancers and is associated with increased ribosome biogenesis and cell proliferation. Conversely, depletion of SURF6 triggers nucleolar stress, p53 activation, and growth arrest. Research using SURF6 antibody supports studies in ribosome assembly, nucleolar dynamics, and cancer biology.

SURF6 antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect nucleolar proteins. NSJ Bioreagents provides SURF6 antibody reagents optimized for studies in ribosomal biogenesis, nucleolar organization, and cellular stress response.

Structurally, Surfeit locus protein 6 contains arginine-rich motifs that mediate RNA binding and multiple acidic stretches that promote protein-protein interactions within the nucleolus. Its modular domains contribute to the architecture of the ribosomal assembly machinery. This antibody facilitates exploration of SURF6's function in nucleolar integrity and ribosome maturation.

Application Notes

Optimal dilution of the SURF6 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SURF6 recombinant protein (Position: M1-R216) was used as the immunogen for the SURF6 antibody.

Storage

After reconstitution, the SURF6 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.