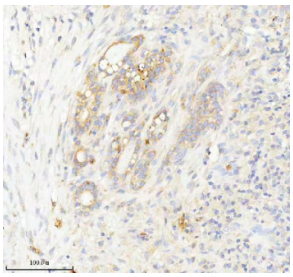
INTS4 Antibody / Integrator complex subunit 4 (FY12251)

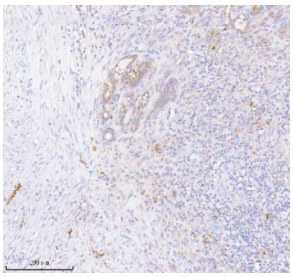
Catalog No.	Formulation	Size
FY12251	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

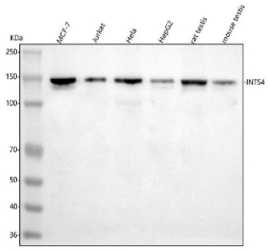
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96HW7
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This INTS4 antibody is available for research use only.



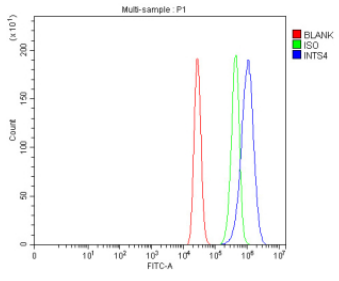
Immunohistochemical staining of INTS4 using anti-INTS4 antibody. INTS4 was detected in a paraffin-embedded section of human thyroid cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-INTS4 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



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Western blot analysis of INTS4 using anti-INTS4 antibody. Lane 1: human MCF-7 whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human HepG2 whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: mouse testis tissue 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-INTS4 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. A specific band was detected for INTS4 at approximately 140 kDa. The expected band size for INTS4 is at 108 kDa.



Flow Cytometry analysis of MCF-7 cells using anti-INTS4 antibody. Overlay histogram showing MCF-7 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-INTS4 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 (Red line) was also used as a control.

Description

INTS4 antibody detects Integrator complex subunit 4, encoded by the INTS4 gene on chromosome 11p15.5. INTS4 antibody is widely used in studies of RNA processing, transcriptional regulation, and nuclear complexes. INTS4 is part of the Integrator complex, a multiprotein assembly that associates with RNA polymerase II and is essential for small nuclear RNA (snRNA) 3' end processing. By regulating snRNA maturation, INTS4 contributes to spliceosome function and overall gene expression control.

Structurally, INTS4 is a ~100 kDa protein that interacts with multiple Integrator subunits to stabilize complex assembly. It lacks obvious enzymatic domains but acts as a scaffold, organizing catalytic and RNA-binding subunits. Isoforms generated by alternative splicing may modify complex architecture or activity in specific tissues. Nuclear localization signals target INTS4 to sites of transcription and RNA processing.

Functionally, INTS4 coordinates snRNA 3' end formation, an essential step for spliceosome assembly and pre-mRNA splicing. It also contributes to regulation of enhancer RNA transcription and termination of certain protein-coding genes. Knockdown of INTS4 impairs Integrator stability, leading to widespread RNA processing defects. Researchers use INTS4 antibody to study transcriptional regulation, RNA biology, and spliceosome assembly.

Clinically, INTS4 mutations are associated with neurodevelopmental disorders, where defective RNA processing alters gene expression programs. Dysregulation of Integrator components has been implicated in cancer, particularly in transcription-driven tumors, where abnormal termination enhances oncogene expression. NSJ Bioreagents provides INTS4 antibody for studies of RNA processing, transcriptional regulation, and disease mechanisms.

Experimentally, INTS4 antibody is used in western blotting to detect the ~100 kDa protein, in immunoprecipitation to analyze Integrator complex composition, and in immunofluorescence microscopy to study nuclear localization. Chromatin immunoprecipitation with INTS4 antibody allows analysis of Integrator recruitment to active genes.

Application Notes

Optimal dilution of the INTS4 antibody should be determined by the researcher.

Immunogen

E.coli-derived human INTS4 recombinant protein (Position: R8-R963) was used as the immunogen for the INTS4 antibody.

Storage

After reconstitution, the INTS4 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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