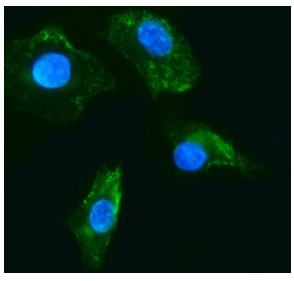
RASL12 Antibody / Ras-like protein family member 12 (FY12016)

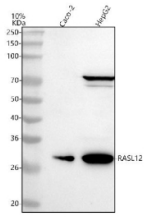
Catalog No.	Formulation	Size
FY12016	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.	100 ug

Bulk quote request

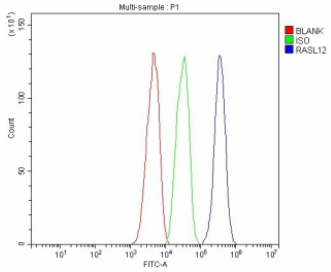
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9NYN1
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This RASL12 antibody is available for research use only.



IF analysis of RASL12 using anti-RASL12 antibody (green). RASL12 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-RASL12 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. The section was counterstained with DAPI (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of RASL12 using anti-RASL12 antibody. Lane 1: human Caco-2 whole cell lysates, Lane 2: human HepG2 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-RASL12 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 RASL12 at approximately 30 kDa. The expected band size for RASL12 is at 30/29/27 kDa (multiple isoforms).



Flow Cytometry analysis of HepG2 cells using anti-RASL12 antibody. Overlay histogram showing HepG2 cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-RASL12 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

RASL12 antibody detects Ras-like protein family member 12, encoded by the RASL12 gene. Ras-like protein family member 12 is a small GTP binding protein that belongs to the Ras superfamily, which regulates signal transduction, cell growth, and cytoskeletal organization. RASL12 antibody provides researchers with a specific reagent for studying small GTPases and their influence on cellular signaling and differentiation.

Ras-like protein family member 12 is less well characterized than classical Ras proteins, but research using RASL12 antibody has shown that it retains the conserved GTP binding and hydrolysis domains characteristic of the Ras family. Through these domains, it likely regulates intracellular signaling cascades linked to growth, adhesion, and movement. Expression studies have shown that RASL12 is present in multiple tissues, suggesting broad cellular roles.

Studies with RASL12 antibody have revealed that Ras-like protein family member 12 may regulate cell cycle progression and survival pathways. Its sequence homology to other Ras proteins suggests involvement in MAPK and PI3K signaling networks, although specific effectors remain under investigation. Understanding the role of RASL12 may uncover new mechanisms of Ras family signaling and its impact on development and disease.

Dysregulation of RASL12 has been linked to tumor biology. Research using RASL12 antibody has demonstrated altered expression patterns in certain cancers, where imbalance may contribute to abnormal proliferation and survival. These findings support further investigation into its potential as a cancer biomarker and therapeutic target.

RASL12 antibody is commonly applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting detects endogenous expression in tissues and cell lines, immunohistochemistry reveals tissue-specific localization, and immunofluorescence highlights subcellular distribution. These approaches make RASL12 antibody valuable for research into Ras signaling networks.

By providing validated RASL12 antibody reagents, NSJ Bioreagents supports studies into Ras superfamily proteins, signal transduction, and cancer. Detection of Ras-like protein family member 12 offers researchers insight into how small GTPases integrate cellular signaling.

Application Notes

Optimal dilution of the RASL12 antibody should be determined by the researcher.

Immunogen

E.coli-derived human RASL12 recombinant protein (Position: K7-K261) was used as the immunogen for the RASL12 antibody.

Storage

After reconstitution, the RASL12 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.