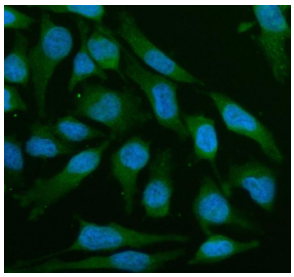
# LZTS2 Antibody / Leucine zipper putative tumor suppressor 2 (FY12409)

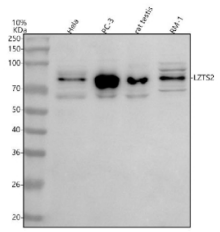
| Catalog No. | Formulation | Size |
|---|---|---|
| FY12409 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml | 100 ug |

**Bulk quote request**

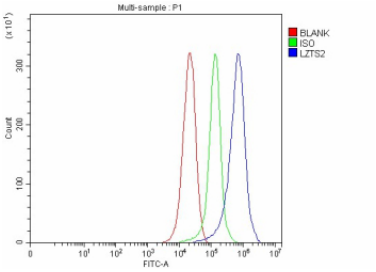
| | |
|---|---|
| **Availability** | 1-2 days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Lyophilized |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Immunogen affinity purified |
| **Buffer** | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4. |
| **UniProt** | Q9BRK4 |
| **Applications** | Western Blot: 0.25-0.5ug/ml<br>Immunocytochemistry: 5ug/ml<br>Immunofluorescence: 5ug/ml<br>Flow cytometry: 1-3ug/million cells<br>ELISA: 0.1-0.5ug/ml |
| **Limitations** | This LZTS2 antibody is available for research use only. |



Immunofluorescent staining of LZTS2 using anti-LZTS2 antibody (green). LZTS2 was detected in an immunocytochemical section of HELA 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-LZTS2 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 nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.




Western blot analysis of LZTS2 using anti-LZTS2 antibody. Lane 1: human Hela whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: rat testis tissue lysates, Lane 4: mouse RM-1 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-LZTS2 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. LZTS2 (~75 kDa predicted) was detected at ~75 kDa with an additional ~65 kDa band, consistent with the phosphorylated and proteolytically processed forms described in previous studies.




Flow Cytometry analysis of Hela cells using anti-LZTS2 antibody. Overlay histogram showing Hela 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-LZTS2 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 LZTS2 antibody targets Leucine zipper putative tumor suppressor 2, a microtubule-associated protein encoded by the LZTS2 gene. Leucine zipper putative tumor suppressor 2 acts as a cell cycle regulator and transcriptional modulator involved in mitosis, cytoskeletal organization, and growth control. It functions as a negative regulator of beta-catenin signaling and participates in centrosome integrity and spindle orientation. The LZTS2 antibody provides a key tool for studying tumor suppression, cytoskeletal regulation, and Wnt signaling dynamics.

Leucine zipper putative tumor suppressor 2 contains multiple coiled-coil and leucine zipper motifs that facilitate protein-protein interactions and localization to microtubules and centrosomes. During mitosis, it associates with the spindle apparatus and contributes to chromosome segregation fidelity. The LZTS2 antibody supports localization studies that reveal its role in maintaining mitotic stability and preventing aneuploidy. Loss of LZTS2 disrupts spindle organization and cell division, leading to chromosomal instability that can promote tumorigenesis.

As a regulator of Wnt/beta-catenin signaling, Leucine zipper putative tumor suppressor 2 binds beta-catenin and inhibits its nuclear translocation, thereby attenuating transcription of Wnt target genes involved in proliferation. The LZTS2 antibody enables detection of expression changes in response to Wnt pathway activation or tumor progression. Reduced levels of LZTS2 have been documented in prostate, colorectal, and lung cancers, correlating with enhanced beta-catenin activity and increased malignancy.

Beyond cancer biology, Leucine zipper putative tumor suppressor 2 contributes to neural development and cytoskeletal regulation in neurons. It stabilizes microtubule structures and promotes axonal outgrowth, suggesting functions in cellular differentiation and morphogenesis. The LZTS2 antibody supports studies into these roles, providing a means to evaluate expression across developing tissues and in response to neurotrophic factors.

The LZTS2 antibody performs effectively in western blotting, immunofluorescence, and immunohistochemistry, producing characteristic cytoplasmic and perinuclear staining consistent with microtubule association. NSJ Bioreagents provides this antibody as a validated, high-specificity reagent for use in cancer, developmental, and molecular cell biology research. By enabling detailed characterization of Leucine zipper putative tumor suppressor 2 expression and function, the LZTS2 antibody advances understanding of tumor suppression, cell division control, and cytoskeletal organization.

## Application Notes

Optimal dilution of the LZTS2 antibody should be determined by the researcher.

## Immunogen

E.coli-derived human LZTS2 recombinant protein (Position: M1-I669) was used as the immunogen for the LZTS2 antibody.

## Storage

After reconstitution, the LZTS2 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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