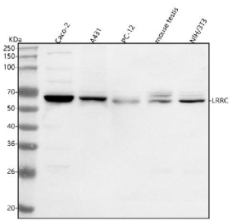
LRRC1 Antibody / Leucine-rich repeat-containing protein 1 (FY12619)

Catalog No.	Formulation	Size
FY12619	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	Q9BTT6
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This LRRC1 antibody is available for research use only.



Western blot analysis of LRRC1 using anti-LRRC1 antibody. Lane 1: human Caco-2 whole cell lysates, Lane 2: human whole cell lysates, Lane 3: rat PC-12 whole cell lysates, Lane 4: mouse testis tissue lysates, Lane 5: mouse NIH/3T3 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-LRRC1 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. Western blot probed with anti-LRRC1 shows a major band at the expected ~63 kDa and a faint upper band consistent with a phosphorylated form of LRRC1.

Description

LRRC1 antibody detects Leucine-rich repeat-containing protein 1, a scaffolding protein that plays a crucial role in cell polarity, cytoskeletal organization, and signal transduction. LRRC1 is associated with tight junctions and regulates spatial organization of signaling complexes at the plasma membrane. The LRRC1 antibody is used in cell biology and epithelial

research to study junctional assembly, polarity establishment, and cell adhesion.

LRRC1 is encoded by the LRRC1 gene located on human chromosome 6p12.2. The protein is approximately 836 amino acids long and contains multiple leucine-rich repeats and coiled-coil regions that facilitate protein-protein interactions. LRRC1 localizes to cell-cell junctions, where it interacts with polarity regulators such as PAR6 and PARD3, forming complexes that define apical and basolateral membrane domains.

The LRRC1 antibody detects a 95 kilodalton band by western blot and reveals junctional and cortical membrane staining under immunofluorescence. Through its interactions, LRRC1 maintains epithelial barrier integrity and contributes to asymmetric signaling required for tissue organization. In neurons, LRRC1 participates in axon guidance and synapse formation by coordinating polarity-related signaling.

Dysregulation of LRRC1 expression has been associated with tumor progression, particularly in epithelial cancers, where loss of polarity contributes to invasiveness and metastasis. LRRC1 also influences cell migration by regulating cytoskeletal rearrangement and adhesion complex turnover. Studies indicate LRRC1 interacts with small GTPases, linking it to actin dynamics and vesicle trafficking.

Because LRRC1 anchors polarity proteins and signaling regulators, it serves as a critical structural determinant of epithelial and neuronal architecture. NSJ Bioreagents provides a validated LRRC1 antibody optimized for its applications, supporting research into cell polarity, adhesion, and cancer biology.

Application Notes

Optimal dilution of the LRRC1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human LRRC1 recombinant protein (Position: L120-R497) was used as the immunogen for the LRRC1 antibody.

Storage

After reconstitution, the LRRC1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.