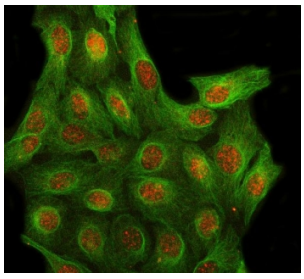
LRIT3 Antibody / Leucine-Rich Repeat Protein Antibody (RQ8551)

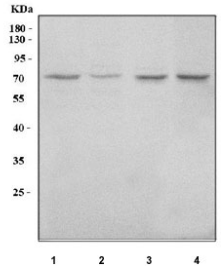
Catalog No.	Formulation	Size
RQ8551	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q3SXY7
Localization	Cytoplasm
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This LRIT3 Antibody / Leucine-Rich Repeat Protein Antibody is available for research use only.



LRIT3 Antibody Human U2OS Osteosarcoma Cell IF. Immunofluorescence analysis of human U2OS osteosarcoma cells was performed with LRIT3 Antibody at 5 ug/ml following enzyme antigen retrieval for 15 min. LRIT3 was detected with Cy3-conjugated secondary antibody (red), while beta tubulin was co-stained with DyLight 488-conjugated secondary antibody (green). LRIT3 staining is observed predominantly in the nuclear and perinuclear regions, while beta tubulin highlights the cytoplasmic microtubule network. This LRIT3 Antibody demonstrates cellular localization of the leucine-rich repeat protein in human U2OS cells.



LRIT3 Antibody Human, Mouse and Rat WB. Western blot analysis was performed with LRIT3 Antibody on human 293T and Jurkat cell lysates (lanes 1-2), rat kidney tissue lysate (lane 3) and mouse kidney tissue lysate (lane 4). Samples were separated by 5-20% SDS-PAGE under reducing conditions, and the antibody was used at 0.5 ug/ml overnight at 4oC. A specific band is detected at approximately 75 kDa across the human, rat and mouse samples, consistent with the expected molecular weight of LRIT3. This LRIT3 Antibody demonstrates detection of the leucine-rich repeat protein across multiple species and sample types.

Description

LRIT3 Antibody / Leucine-Rich Repeat Protein Antibody detects leucine-rich repeat, immunoglobulin-like and transmembrane domains 3, a membrane-associated protein encoded by the LRIT3 gene. LRIT3 contains extracellular leucine-rich repeat and immunoglobulin-like domains together with a transmembrane region. These structural features are consistent with a role in organizing protein interactions and signaling complexes at the cell surface. LRIT3 is studied in membrane protein biology as well as for its specialized functions within the visual system.

LRIT3 has an important role in retinal signal transmission, particularly at the synapse connecting photoreceptors with ON-bipolar cells. It contributes to the organization of signaling components required for normal depolarizing responses of ON-bipolar cells to changes in photoreceptor activity. LRIT3 is therefore relevant to research examining how signals generated by rods and cones are transmitted through retinal neuronal circuits.

Disruption of LRIT3 function is associated with complete congenital stationary night blindness. Pathogenic variants in LRIT3 can impair ON-bipolar cell signaling while leaving photoreceptor function relatively preserved, producing characteristic abnormalities in retinal signal transmission. LRIT3 is consequently investigated in studies of inherited retinal disease, night vision, synaptic organization and the molecular mechanisms underlying visual processing.

Beyond its established retinal role, the domain architecture of LRIT3 makes it relevant to broader investigation of membrane-associated protein interactions. Analysis of LRIT3 expression in different cells and tissues may help characterize its distribution and provide additional insight into its biological functions outside the retina. An LRIT3 Antibody can support studies examining expression and localization without restricting investigation to retinal tissue.

NSJ Bioreagents offers LRIT3 Antibody reagents for investigating LRIT3 expression and cellular localization. A Leucine-Rich Repeat Protein Antibody can support research into LRIT3 membrane protein biology, retinal ON-bipolar signaling, visual signal transmission and mechanisms associated with congenital stationary night blindness.

Researchers studying LRIT3 and retinal signal transmission can explore our Neuroscience Antibodies page for additional targets involved in neuronal signaling, synaptic organization and sensory system biology.

Application Notes

Optimal dilution of the LRIT3 Antibody / Leucine-Rich Repeat Protein Antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (amino acids E50-R573) was used as the immunogen for the LRIT3 antibody.

Storage

After reconstitution, the LRIT3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

LRIT3 antibody, Leucine-Rich Repeat Protein antibody, Leucine-Rich Repeat Immunoglobulin-Like and Transmembrane Domains 3 antibody, CSNB1F antibody

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