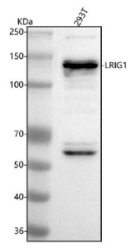
LRIG1 Antibody / Leucine-rich repeats and immunoglobulin-like domains protein 1 (FY12808)

Catalog No.	Formulation	Size
FY12808	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
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	Q96JA1
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This LRIG1 antibody is available for research use only.



Western blot analysis of LRIG1 using anti-LRIG1 antibody. Lane 1: human 293T 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-LRIG1 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 predominant band is observed at ~140-145 kDa, consistent with the mature glycosylated receptor (predicted ~119 kDa). A ~60 kDa doublet is also detected, consistent with glycosylated ectodomain cleavage products of LRIG1.

Description

LRIG1 antibody detects Leucine-rich repeats and immunoglobulin-like domains protein 1, a transmembrane protein that regulates growth factor receptor signaling and functions as a tumor suppressor. Encoded by the LRIG1 gene on chromosome 3p14.1, this protein contains multiple extracellular leucine-rich repeats and three immunoglobulin-like

domains that enable binding to receptor tyrosine kinases, including members of the epidermal growth factor receptor (EGFR) family. LRIG1 promotes receptor ubiquitination and degradation, attenuating signaling that drives proliferation and differentiation.

LRIG1 localizes primarily to the plasma membrane but can also be detected in intracellular vesicles and the nucleus. It negatively regulates EGFR, ERBB2, and ERBB3 signaling by recruiting E3 ubiquitin ligases such as CBL to target receptors for degradation. In addition to receptor regulation, LRIG1 functions as a stem cell marker in epithelial tissues, maintaining quiescence and tissue renewal capacity. In the intestine and skin, LRIG1 marks long-lived stem cells essential for tissue homeostasis.

The LRIG1 antibody is widely used in cancer biology, stem cell, and developmental research to study growth factor receptor regulation, cell differentiation, and tumor suppression. Western blot analysis identifies a 120-150 kilodalton band corresponding to LRIG1, while immunohistochemistry reveals membrane and cytoplasmic staining in epithelial and neural tissues. This antibody supports investigations into receptor turnover, oncogenic signaling, and epithelial regeneration.

Loss or downregulation of LRIG1 is associated with tumor progression in gliomas, breast, and colorectal cancers due to hyperactivation of growth factor signaling. Conversely, overexpression suppresses tumor growth by dampening EGFR pathway activity. The LRIG1 antibody provides a reliable tool for studying receptor regulation, epithelial biology, and cancer suppression. NSJ Bioreagents offers this antibody validated for its applications, ensuring consistent detection in growth signaling research.

Application Notes

Optimal dilution of the LRIG1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human LRIG1 recombinant protein (Position: K79-E906) was used as the immunogen for the LRIG1 antibody.

Storage

After reconstitution, the LRIG1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.