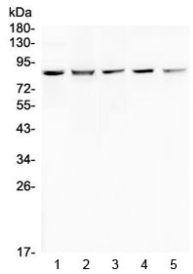
RNF43 Antibody / Ring finger protein 43 (RQ4411)

Catalog No.	Formulation	Size
RQ4411	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	April of 2026
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q68DV7
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Direct ELISA : 0.1-0.5ug/ml (recombinant human protein) (BSA-free format available)
Limitations	This RNF43 antibody is available for research use only.



Western blot testing of human 1) HeLa, 2) 293T, 3) COLO-320, 4) SW620 and 5) MCF7 cell lysate with RNF43 antibody at 0.5ug/ml. Predicted molecular weight: ~86 kDa (isoform 1), ~95 kDa (isoform 4).

Description

RNF43 antibody targets Ring finger protein 43 (RNF43), a transmembrane E3 ubiquitin ligase that functions as a key negative regulator of Wnt signaling. RNF43 localizes predominantly to the plasma membrane and endosomal compartments, where it ubiquitinates Wnt receptors of the Frizzled family, promoting their internalization and degradation. Through this mechanism, RNF43 limits Wnt pathway activation and helps maintain proper control of cell proliferation and differentiation. RNF43 belongs to the RING-type E3 ubiquitin ligase family, characterized by a cytosolic RING finger domain that mediates ubiquitin transfer to target proteins.

Functionally, RNF43 acts as part of a feedback regulatory loop within the Wnt signaling pathway. Wnt activation induces expression of RNF43, which in turn downregulates Wnt receptor availability at the cell surface, attenuating further signaling. This feedback mechanism is essential for maintaining signaling balance in tissues that rely on tightly controlled Wnt activity, such as intestinal epithelium and stem cell niches. An RNF43 antibody supports studies examining receptor ubiquitination, membrane protein turnover, and Wnt pathway regulation.

RNF43 plays an important role in tissue homeostasis and epithelial maintenance. By controlling Frizzled receptor levels, RNF43 influences stem cell renewal, lineage commitment, and tissue regeneration. Loss or reduction of RNF43 function results in enhanced Wnt responsiveness, which can disrupt normal differentiation programs. RNF43 expression is observed in multiple tissues, with prominent roles in epithelial and stem cell-associated contexts. An RNF43 antibody enables analysis of RNF43 expression and regulation in developmental and signaling studies.

From a biological and disease-relevance perspective, RNF43 has been extensively studied in cancer biology, particularly in gastrointestinal malignancies. Inactivating mutations in RNF43 are associated with aberrant Wnt pathway activation and tumor development. Because RNF43 acts as a tumor suppressor-like regulator of Wnt signaling, it is frequently analyzed in studies investigating oncogenic signaling networks and therapeutic targeting of the Wnt pathway. Understanding RNF43 expression and localization provides insight into mechanisms of signal deregulation in disease.

At the molecular level, RNF43 is encoded by the RNF43 gene and produces a protein of approximately 783 amino acids. The protein contains an N-terminal luminal region, a single transmembrane domain, and a cytosolic C-terminal RING finger domain responsible for E3 ligase activity. Regulation of RNF43 function depends on cellular signaling context, receptor interactions, and ubiquitination dynamics. An RNF43 antibody supports research applications focused on Wnt signaling, ubiquitin-mediated receptor regulation, and membrane protein homeostasis, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the RNF43 antibody should be determined by the researcher.

Immunogen

A human partial recombinant protein corresponding to amino acids G24-Y197 was used as the immunogen for the RNF43 antibody.

Storage

After reconstitution, the RNF43 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.