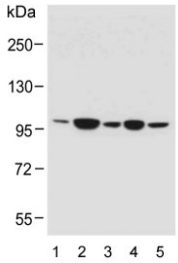
RHBDF2 Antibody / ADAM17 Regulator (F54321)

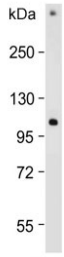
Catalog No.	Formulation	Size
F54321-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54321-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

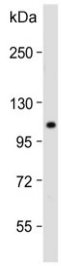
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
UniProt	Q6PJF5
RRID	AB_3754344
Localization	Cytoplasmic, plasma membrane
Applications	Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:25
Limitations	This RHBDF2 Antibody / ADAM17 Regulator is available for research use only.



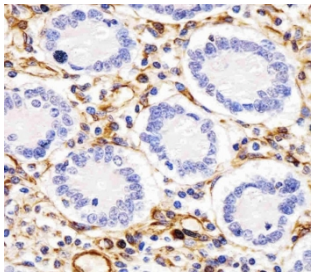
RHBDF2 Antibody in Human Cancer Cell Lines WB. Western blot testing of human cell lysates with RHBDF2 Antibody / ADAM17 Regulator. Lane 1: RPMI-8226; Lane 2: A549; Lane 3: A431; Lane 4: HT-1080; Lane 5: MCF7. The predicted molecular weight of RHBDF2 is approximately 97 kDa. This RHBDF2 Antibody demonstrates detection of iRhom2 across multiple human cancer cell lines.



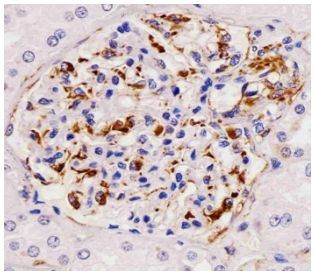
RHBDF2 Antibody in HaCaT Keratinocytes WB. Western blot testing of human HaCaT keratinocyte cell lysate with RHBDF2 Antibody / ADAM17 Regulator. The predicted molecular weight of RHBDF2 is approximately 97 kDa. Detection in HaCaT cells supports the use of this RHBDF2 Antibody for studies of iRhom2 and ADAM17 regulatory biology.



RHBDF2 Antibody in Mouse Lung WB. Western blot testing of mouse lung tissue lysate with RHBDF2 Antibody / ADAM17 Regulator. The predicted molecular weight of RHBDF2 is approximately 97 kDa. This RHBDF2 Antibody demonstrates detection of the ADAM17 regulator iRhom2 in mouse tissue.



RHBDF2 Antibody in Human Duodenum IHC. Immunohistochemistry staining of FFPE human duodenum tissue with RHBDF2 Antibody / ADAM17 Regulator. HIER was performed by steaming tissue sections in pH 6 citrate buffer for 20 min followed by cooling before testing. The observed staining demonstrates RHBDF2 localization in human duodenal tissue.



RHBDF2 Antibody in Human Kidney IHC. Immunohistochemistry staining of FFPE human kidney tissue with RHBDF2 Antibody / ADAM17 Regulator. Tissue sections underwent HIER by steaming in pH 6 citrate buffer for 20 min and were allowed to cool before testing. The staining demonstrates iRhom2 distribution in human kidney tissue and supports investigation of RHBDF2 expression by IHC.

Description

RHBDF2 Antibody / ADAM17 Regulator detects rhomboid 5 homolog 2 (RHBDF2), a catalytically inactive member of the rhomboid protein family also known as iRhom2. Unlike active rhomboid proteases, RHBDF2 lacks proteolytic activity but functions as an important regulator of membrane protein trafficking and signaling. A major function of iRhom2 is regulation of ADAM17, a membrane-associated metalloprotease responsible for shedding numerous cell-surface proteins, including tumor necrosis factor (TNF) and epidermal growth factor receptor (EGFR) ligands.

RHBDF2 participates in the maturation, trafficking and regulation of ADAM17, helping control its movement through the secretory pathway and its activity at the cell surface. Through this relationship, iRhom2 can influence the release of soluble signaling molecules from membrane-bound precursors. ADAM17 substrates include TNF as well as EGFR ligands, connecting RHBDF2 function with inflammatory signaling, cell survival, proliferation and tissue homeostasis.

iRhom2 is particularly relevant to immune and inflammatory biology, where regulation of ADAM17-mediated TNF shedding can influence inflammatory responses. The RHBDF2-ADAM17 axis is also studied in relation to EGFR signaling because ADAM17-mediated release of EGFR ligands can regulate pathways controlling proliferation, migration and survival. These functions make RHBDF2 an important link between membrane trafficking, proteolytic shedding and downstream signal transduction.

Altered RHBDF2 activity is also relevant to human disease. Genetic variants affecting RHBDF2 have been associated with tylosis with esophageal cancer, an inherited disorder characterized by palmoplantar keratoderma and increased risk of esophageal squamous cell carcinoma. Dysregulation of the iRhom2-ADAM17 pathway is additionally investigated in cancer and inflammatory disease, where abnormal control of cytokine or growth factor signaling may contribute to disease processes.

This rabbit polyclonal RHBDF2 Antibody has been evaluated by Western blot and immunohistochemistry and is reactive with human and mouse samples. NSJ Bioreagents supplies antibodies for research into cellular signaling, inflammation and cancer biology. An RHBDF2 Antibody can be used to investigate ADAM17 regulation, iRhom2 expression, EGFR ligand shedding, TNF signaling and mechanisms connecting membrane trafficking with inflammatory and proliferative pathways.

For related reagents used to investigate receptor signaling, proteolytic shedding and downstream cellular responses, explore our Signal Transduction Antibodies page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the RHBDF2 Antibody / ADAM17 Regulator may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 80-109 from the human protein was used as the immunogen for the RHBDF2 antibody.

Storage

Aliquot the RHBDF2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

RHBDF2 antibody, iRhom2 antibody, Rhomboid 5 Homolog 2 antibody, Inactive Rhomboid Protein 2 antibody, ADAM17 Regulator antibody

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