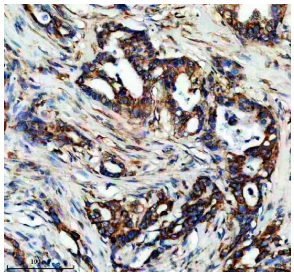
TMED2 Antibody / Transmembrane emp24 domain-containing protein 2 Antibody (FY13618)

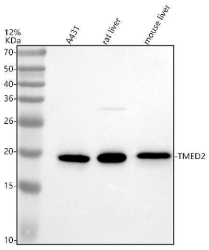
Catalog No.	Formulation	Size
FY13618	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q15363
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This TMED2 Antibody / Transmembrane emp24 domain-containing protein 2 Antibody is intended for research use only.



TMED2 Antibody by IHC in human pancreatic carcinoma. Immunohistochemistry of formalin-fixed, paraffin-embedded human pancreatic carcinoma using Transmembrane emp24 domain-containing protein 2 Antibody shows brown cytoplasmic staining in tumor-associated epithelial structures. Antigen retrieval was performed with EDTA buffer at pH 8.0. Sections were blocked with 10% goat serum and incubated with primary antibody at 2 ug/mL overnight at 4oC. Detection used an HRP-conjugated secondary antibody and DAB chromogen, with hematoxylin counterstaining.



TMED2 Antibody by WB in human and rodent lysates. Western blot analysis using Transmembrane emp24 domain-containing protein 2 Antibody detects an immunoreactive band consistent with the expected molecular weight of approximately 23 kDa. Lane assignments: human A431 (lane 1), rat liver (lane 2), mouse liver (lane 3). Each lane contained 30 ug total protein under reducing conditions, resolved by 12% SDS-PAGE and transferred to nitrocellulose. Membranes were blocked with 5% nonfat milk and incubated with primary antibody at 0.5 ug/mL overnight at 4oC. An HRP-conjugated secondary antibody and chemiluminescent substrate were used for detection.

Description

TMED2 Antibody / Transmembrane emp24 domain-containing protein 2 Antibody recognizes TMED2, a member of the p24 family of membrane proteins involved in trafficking through the early secretory pathway. TMED2 is commonly referred to as p24 beta 1 and is found in compartments connecting the endoplasmic reticulum, ER-Golgi intermediate compartment, and Golgi apparatus. Proteins moving through these compartments must be packaged, transported, retrieved, and sorted with considerable precision. Members of the p24 family help organize aspects of this process and often function as components of larger protein assemblies.

TMED2 is a type I transmembrane protein with a luminal GOLD domain and a short cytoplasmic tail. Its membrane-spanning region anchors it within secretory organelles, while its cytoplasmic sequence contains information involved in interactions with vesicular trafficking machinery. COPII-coated carriers generally mediate export from the endoplasmic reticulum, whereas COPI participates in retrograde and intra-Golgi transport. p24-family proteins can engage components of these coat systems, helping couple membrane cargo handling to the direction and organization of vesicular traffic.

The TMED2 Antibody recognizes a p24-family component whose location and molecular partnerships are closely tied to the organization of early secretory compartments. Individual p24 proteins do not necessarily operate independently. Their stability and intracellular distribution can depend on association with other family members, making the composition of p24 complexes an important determinant of their behavior. TMED2 has been implicated in the transport of selected cargo and in the maintenance of normal early secretory pathway organization. However, a requirement for TMED2 in one cargo pathway does not establish that it is a universal receptor for all secreted proteins. Cargo dependence and tissue context remain important distinctions.

The physiological significance of TMED2 extends beyond routine protein transport. Disruption of Tmed2 in experimental animal models has been associated with severe developmental abnormalities, consistent with the broad importance of secretory trafficking during embryogenesis. Rapidly differentiating tissues depend on timely delivery of receptors, matrix components, and signaling molecules. Understanding how TMED2-containing complexes select and organize their cargo may therefore illuminate the relationship between intracellular membrane traffic and coordinated tissue development.

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Application Notes

The appropriate working dilution of the TMED2 Antibody / Transmembrane emp24 domain-containing protein 2 Antibody should be optimized by the end user.

Immunogen

The TMED2 Antibody was generated using a synthetic peptide corresponding to a sequence at the C-terminus of human TMED2.

Storage

After reconstitution, the TMED2 Antibody may be stored at 4oC for up to one month. For longer storage, aliquot and freeze at -20oC for up to six months. Avoid repeated freezing and thawing.

Alternate Names

TMED2 antibody, Transmembrane emp24 domain-containing protein 2 antibody, transmembrane p24 trafficking protein 2 antibody, RNP24 antibody, Membrane protein p24A antibody, p24 antibody, p24 family protein beta-1 antibody, p24beta1 antibody

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