SANTA CRUZ BIOTECHNOLOGY, INC.

VIP36 (264C4a): sc-130026

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Lectin mannose-binding 1, also designated vesicular integral-membrane protein (VIP36) and lectin mannose-binding 2, also designated ERGIC-53 comprise a family of membrane bound, ubiquitous proteins involved in the selective transport of newly synthesized glycoproteins from the endoplasmic reticulum (ER) to the ER-Golgi intermediate compartment (ERGIC). VIP36 acts as an intracellular lectin in the early secretory pathway. It is involved in the sorting and transport of glycoproteins carrying high mannose-type glycans. ERGIC-53, a mannose-specific lectin, recognizes sugar residues of glycoproteins and glycolipids. It mediates the sorting and recycling of proteins and/or lipids. Null expression of ERGIC-53, also designated LMAN1, results in a rare autosomal recessive bleeding disorder that causes combined deficiency of both coagulation factors V and VIII.

REFERENCES

1. Schindler, R., et al. 1993. ERGIC-53, a membrane protein of the ER-Golgi intermediate compartment, carries an ER retention motif. Eur. J. Cell Biol. 61: 1-9.
2. Kappeler, F., et al. 1994. A dual role for COOH-terminal lysine residues in pre-Golgi retention and endocytosis of ERGIC-53. J. Biol. Chem. 269: 6279-6281.
3. Hauri, H.P., et al. 2002. Lectins and protein traffic early in the secretory pathway. Biochem. Soc. Symp. 69: 73-82.
4. Cunningham, M.A., et al. 2003. LMAN1 is a molecular chaperone for the secretion of coagulation factor VIII. J. Thromb. Haemost. 1: 2360-2367.
5. Hara-Kuge, S., et al. 2004. The binding of VIP36 and α-Amylase in the secretory vesicles via high-mannose type glycans. Glycobiology 14: 739-744.
6. Kamiya, Y., et al. 2005. Sugar-binding properties of VIP36, an intracellular animal lectin operating as a cargo receptor. J. Biol. Chem. 280: 37178-37182.
7. Neve, E.P., et al. 2005. Oligomerization and interacellular localization of the glycoprotein receptor ERGIC-53 is independent of disulfide bonds. J. Mol. Biol. 354: 556-568.

CHROMOSOMAL LOCATION

Genetic locus: LMAN2 (human) mapping to 5q35.3; Lman2 (mouse) mapping to 13 B1.

SOURCE

VIP36 (264C4a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of VIP36 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

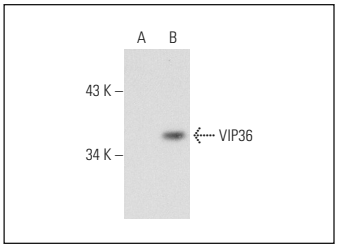
VIP36 (264C4a) is recommended for detection of VIP36 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for VIP36 siRNA (h): sc-45242, VIP36 siRNA (m): sc-45243, VIP36 shRNA Plasmid (h): sc-45242-SH, VIP36 shRNA Plasmid (m): sc-45243-SH, VIP36 shRNA (h) Lentiviral Particles: sc-45242-V and VIP36 shRNA (m) Lentiviral Particles: sc-45243-V.

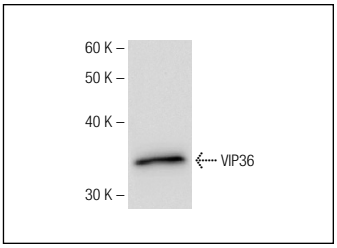
Molecular Weight of VIP36: 36 kDa.

Positive Controls: VIP36 (m): 293T Lysate: sc-124567.

DATA



VIP36 (264C4a): sc-130026. Western blot analysis of VIP36 expression in non-transfected: sc-117752 (**A**) and mouse VIP36 transfected: sc-124567 (**B**) 293T whole cell lysates.



VIP36 (264C4a): sc-130026. Western blot analysis of human recombinant VIP36 fusion protein.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.