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VTI1a Antibody

Catalog # ASC11949

Product Information

Application	WB, IHC, E
Primary Accession	Q96AJ9
Other Accession	NP_660207, 113374156
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	25218
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	VTI1a antibody can be used for detection of VTI1a by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	143187
Other Names	Vesicle transport through interaction with t-SNAREs homolog 1A, Vesicle transport v-SNARE protein Vti1-like 2, Vti1-rp2, VTI1A
Target/Specificity	VTI1a; VTI1a antibody is human, mouse and rat reactive. At least two isoforms of VTI1a are known to exist; this antibody will detect both isoforms. VTI1a antibody is predicted to not cross-react with VTI1b.
Reconstitution & Storage	VTI1a antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	VTI1a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	VTI1A
Function	V-SNARE that mediates vesicle transport pathways through interactions with t-SNAREs on the target membrane. These interactions are proposed to mediate aspects of the specificity of vesicle trafficking and to promote fusion of the lipid bilayers. Involved in vesicular transport from the late endosomes to the trans-Golgi network. Along with VAMP7, involved in an non-conventional RAB1-dependent traffic route to the cell surface used by KCNIP1 and KCND2. May be involved in increased cytokine secretion associated with cellular senescence.

Cellular Location	Cytoplasmic vesicle. Golgi apparatus membrane; Single-pass type IV membrane protein

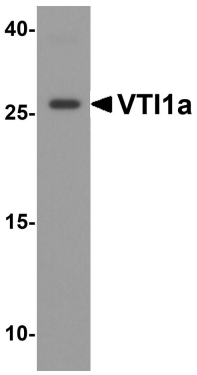
Background

Vesicle transport through interaction with t-SNAREs homolog 1 (VTI1a and VTI1b) are involved in vesicular transport from the late endosomes to the trans-Golgi network (1). They are both localized in the trans-Golgi network, with VTI1a also found in the Golgi apparatus and VTI1b in endosomes (2,3). VTI1a mediates vesicle transport pathways through interactions with t-SNAREs on the target membrane and promotes fusion of the lipid bilayers (4). VTI1a may be concerned with increased secretion of cytokines associated with cellular senescence (5).

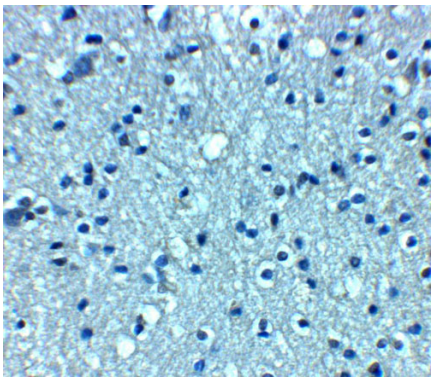
References

Fischer VM and Stevens TH. A human homolog can functionally replace the yeast vesicle-associated SNARE Vti1p in two vesicle transport pathways. J. Biol. Chem. 1998; 273:2624-30.
Kreykenbohm V, Wenzel D, Antonin W et al. The SNAREs vti1a and vti1b have distinct localization and SNARE complex partners. Eur. J. Cell Biol. 2002; 81:273-80.
Antonin W, Riedel D, von Mollard GF, et al. The SNARE Vti1a-beta is localized to small synaptic vesicles and participates in a novel SNARE complex. J. Neurosci. 2000; 20:5724-32.
Atlashkin V, Kreykenbohm V, Eskelinen EL, et al. Deletion of the SNARE vti1b in mice results in the loss of a single SNARE partner, syntaxin 8. Mol. Cell Biol. 2003; 23:5198-207.

Images



Western blot analysis of VTI1a in human brain tissue lysate with VTI1a antibody at 1 µg/ml.



Immunohistochemistry of VTI1a in human brain tissue with VTI1a antibody at 5 µg/mL.