

BVES Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13010b

Specification

BVES Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW Antigen Region IHC-P, WB,E <u>O8NE79</u> <u>NP_009004.2</u>, <u>NP_671488.1</u> Human Rabbit Polyclonal Rabbit IgG 41451 313-342

BVES Antibody (C-term) - Additional Information

Gene ID 11149

Other Names Blood vessel epicardial substance, hBVES, Popeye domain-containing protein 1, Popeye protein 1, BVES, POP1, POPDC1

Target/Specificity

This BVES antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 313-342 amino acids from the C-terminal region of human BVES.

Dilution IHC-P~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

BVES Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BVES Antibody (C-term) - Protein Information

Name POPDC1 (<u>HGNC:1152</u>)



Function Cell adhesion molecule involved in the establishment and/or maintenance of cell integrity. Involved in the formation and regulation of the tight junction (TJ) paracellular permeability barrier in epithelial cells (PubMed:<u>16188940</u>). Plays a role in VAMP3-mediated vesicular transport and recycling of different receptor molecules through its interaction with VAMP3. Plays a role in the regulation of cell shape and movement by modulating the Rho-family GTPase activity through its interaction with ARHGEF25/GEFT. Induces primordial adhesive contact and aggregation of epithelial cells in a Ca(2+)-independent manner. Also involved in striated muscle regeneration and repair and in the regulatory function in heart rate dynamics mediated, at least in part, through cAMP-binding and, probably, by increasing cell surface expression of the potassium channel KCNK2 and enhancing current density (PubMed:<u>26642364</u>). Is also a caveolae-associated protein important for the preservation of caveolae structural and functional integrity as well as for heart protection against ischemia injury.

Cellular Location

Lateral cell membrane. Cell junction, tight junction. Membrane; Multi-pass membrane protein. Cell membrane, sarcolemma. Membrane, caveola {ECO:0000250|UniProtKB:Q9ES83}. Note=Colocalizes with VAMP3 at the cell-cell contact in cardiac and skeletal muscle (By similarity). Its movement from the cytoplasm to membrane is an early event occurring concurrently with cell-cell contact. Colocalizes in epithelial cells with OCLN and TJP1 in an apical-lateral position within the z axis Detected at cell-cell contact but never observed at the free surface of epithelial cells. {ECO:000250|UniProtKB:Q9ES83}

Tissue Location

Expressed in epithelial cells (at protein level). Expressed in fetal and adult heart and skeletal muscle

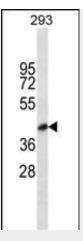
BVES Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

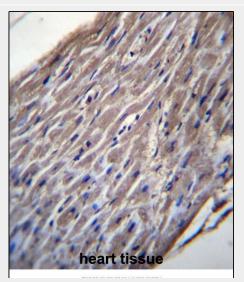
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

BVES Antibody (C-term) - Images





BVES Antibody (C-term) (Cat. #AP13010b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the BVES antibody detected the BVES protein (arrow).



BVES Antibody (C-term) (Cat. #AP13010b)immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of BVES Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

BVES Antibody (C-term) - Background

This gene encodes a member of the POP family of proteins containing three putative transmembrane domains. This gene is expressed in cardiac and skeletal muscle and may play an important role in development of these tissues. The mouse ortholog may be involved in the regeneration of adult skeletal muscle and may act as a cell adhesion molecule in coronary vasculogenesis. Two transcript variants encoding the same protein have been found for this gene.

BVES Antibody (C-term) - References

Kim, M., et al. Carcinogenesis 31(9):1685-1693(2010) Zhao, J., et al. BMC Med. Genet. 11, 96 (2010) : Sulem, P., et al. Nat. Genet. 41(6):734-738(2009) Gudbjartsson, D.F., et al. Nat. Genet. 40(5):609-615(2008)



Feng, Q., et al. Cancer Epidemiol. Biomarkers Prev. 17(3):645-654(2008)