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JPH2 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP13445b

Specification

JPH2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q9BR39

JPH2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 57158

Other Names
Junctophilin-2, JP-2, Junctophilin type 2, JPH2, JP2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13445b was selected from the C-term region of JPH2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

JPH2 Antibody (C-term) Blocking peptide - Protein Information

Name JPH2 (HGNC:14202)

Function
[Junctophilin-2]: Membrane-binding protein that provides a structural bridge between the plasma membrane and the sarcoplasmic reticulum and is required for normal excitation-contraction coupling in cardiomyocytes (PubMed:20095964). Provides a structural foundation for functional cross-talk between the cell surface and intracellular Ca(2+) release channels by maintaining the 12-15 nm gap between the sarcolemma and the sarcoplasmic reticulum membranes in the cardiac dyads (By similarity). Necessary for proper intracellular Ca(2+) signaling in cardiac myocytes via its involvement in ryanodine receptor-mediated calcium ion release (By similarity). Contributes to the construction of skeletal muscle triad junctions (By similarity).

Cellular Location
[Junctophilin-2]: Cell membrane {ECO:0000250|UniProtKB:Q9ET78}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9ET78}. Sarcoplasmic reticulum membrane

{ECO:0000250|UniProtKB:Q9ET78}; Single-pass type IV membrane protein {ECO:0000250|UniProtKB:Q9ET78}. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9ET78}; Single-pass type IV membrane protein {ECO:0000250|UniProtKB:Q9ET78}. Note=The transmembrane domain is anchored in sarcoplasmic reticulum membrane, while the N-terminal part associates with the plasma membrane. In heart cells, it predominantly associates along Z lines within myocytes. In skeletal muscle, it is specifically localized at the junction of A and I bands {ECO:0000250|UniProtKB:Q9ET78}

Tissue Location
Specifically expressed in skeletal muscle and heart.

JPH2 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

JPH2 Antibody (C-term) Blocking peptide - Images

JPH2 Antibody (C-term) Blocking peptide - Background

Junctional complexes between the plasma membrane andendoplasmic/sarcoplasmic reticulum are a common feature of allexcitable cell types and mediate cross talk between cell surfaceand intracellular ion channels. The protein encoded by this gene isa component of junctional complexes and is composed of a C-terminalhydrophobic segment spanning the endoplasmic/sarcoplasmic reticulummembrane and a remaining cytoplasmic domain that shows specificaffinity for the plasma membrane. This gene is a member of thejunctophilin gene family. Alternative splicing has been observed atthis locus and two variants encoding distinct isoforms aredescribed.

JPH2 Antibody (C-term) Blocking peptide - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Woo, J.S., et al. Biochem. J. 427(1):125-134(2010)Yamazaki, D., et al. Pharmacol. Ther. 121(3):265-272(2009)Landstrom, A.P., et al. J. Mol. Cell. Cardiol. 42(6):1026-1035(2007)Matsushita, Y., et al. J. Hum. Genet. 52(6):543-548(2007)