

JPH2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13445b**Specification**

JPH2 Antibody (C-term) Blocking peptide - Product InformationPrimary 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 and endoplasmic/sarcoplasmic reticulum are a common feature of all excitable cell types and mediate cross talk between cell surface and intracellular ion channels. The protein encoded by this gene is a component of junctional complexes and is composed of a C-terminal hydrophobic segment spanning the endoplasmic/sarcoplasmic reticulum membrane and a remaining cytoplasmic domain that shows specific affinity for the plasma membrane. This gene is a member of the junctophilin gene family. Alternative splicing has been observed at this locus and two variants encoding distinct isoforms are described.

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)