

JPH2 Antibody
Catalog # ASC10809**Specification**

JPH2 Antibody - Product Information

Application	WB, IHC
Primary Accession	Q96JJ6
Other Accession	NP_065166 , 21704281
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	JPH2 antibody can be used for detection of JPH2 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.

JPH2 Antibody - Additional Information

Gene ID	84502
Target/Specificity	
JPH4;	

Reconstitution & Storage

JPH2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

JPH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

JPH2 Antibody - Protein Information

Name JPH4

Synonyms JPHL1, KIAA1831

Function

Junctophilins contribute to the formation of junctional membrane complexes (JMCs) which link the plasma membrane with the endoplasmic or sarcoplasmic reticulum in excitable cells. Provides a structural foundation for functional cross-talk between the cell surface and intracellular calcium release channels. JPH4 is brain- specific and appears to have an active role in certain neurons involved in motor coordination and memory (By similarity).

Cellular Location

Cell membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Single-pass type IV membrane protein. Note=Localized predominantly on the plasma membrane. The

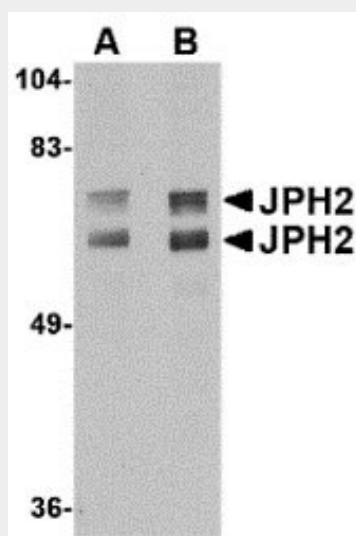
transmembrane domain is anchored in endoplasmic reticulum membrane, while the N-terminal part associates with the plasma membrane (By similarity).

JPH2 Antibody - Protocols

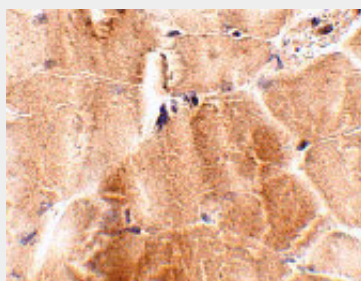
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

JPH2 Antibody - Images



Western blot analysis of JPH2 in mouse brain tissue lysate with JPH2 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of JPH2 in mouse skeletal muscle tissue with JPH2 antibody at 2.5 µg/mL.

JPH2 Antibody - Background

JPH2 Antibody: Junctional complexes between the plasma membrane (PM) and endoplasmic/sarcoplasmic reticulum (ER/SR) are a common feature of all excitable cell types and mediate cross talk between cell surface and intracellular ion channels. Junctophilins (JPs) are

important components of the junctional complexes. JPs are composed of a carboxy-terminal hydrophobic segment spanning the ER/SR membrane and a remaining cytoplasmic domain that shows specific affinity for the PM. Four JPs have been identified as tissue-specific subtypes derived from different genes: JPH1 is expressed in skeletal muscle, JPH2 is detected throughout all muscle cell types, and JPH3 and JPH4 are predominantly expressed in the brain and contribute to the subsurface cistern formation in neurons. JPH2-null mice died of embryonic cardiac arrest and human patients with mutations in the JPH2 gene showed hypertrophic cardiomyopathy, demonstrating the importance of this protein. Multiple isoforms of JPH2 are known to exist.

JPH2 Antibody - References

Takeshima H, Komazaki S, Nishi M, et al. Junctophilins: a novel family of junctional membrane complex proteins. *Mol. Cell.*2000; 6:11-22.
Kakizawa S, Kishimoto Y, Hashimoto K, et al. Junctophilin-mediated channel crosstalk essential for cerebellar synaptic plasticity. *EMBO J.*2007; 26:1924-33.
Nishi M, Sakagami H, Komazaki S, et al. Coexpression of junctophilin type 3 and type 4 in brain. *Brain Res. Mol. Brain Res.*2003; 118:102-10.
Matsushita Y, Furukawa T, Kasanuki H, et al. Mutation of junctophilin type 2 associated with hypertrophic cardiomyopathy. *J. Hum. Genet.*2007; 52:543-8.