

**Datasheet for 600-401-CC5****JPH2 Antibody****Overview**

<b>Description:</b>	Anti-JPH2 (RABBIT) Antibody - 600-401-CC5
<b>Item No.:</b>	600-401-CC5
<b>Size:</b>	100 µg
<b>Applications:</b>	ELISA, WB
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host Species:</b>	Rabbit

**Product Details**

**Background:** 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.

<b>Synonyms:</b>	JPH2 Antibody, JP4, JPHL1, KIAA1831, Junctophilin-4, Junctophilin-like 1 protein, JP-4
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

**Target Details**

<b>Gene Name:</b>	JPH2
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Immunogen Type:</b>	Conjugated Peptide

<b>Immunogen:</b>	Anti-JPH2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 14 amino acid synthetic peptide near the C-terminus of human JPH2.
<b>Purity/Specificity:</b>	Anti-JPH2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with JPH2 from other sources has not been determined.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q9BR39</a></li><li>• <a href="#">GeneID - 84502</a></li><li>• <a href="#">NCBI - NP_065166</a></li></ul>

## Application Details

<b>Tested Applications:</b>	ELISA, WB
<b>Application Note:</b>	Anti-JPH2 Antibody has been tested for use in ELISA and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 74 kDa in Western Blots of specific cell lysates and tissues.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:20,000
<b>WB:</b>	2 µg/mL

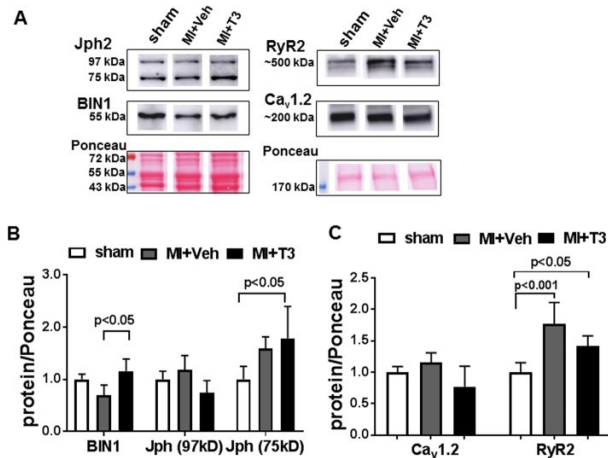
## Formulation

<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	1.0 mg/mL by UV absorbance at 280 nm
<b>Buffer:</b>	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.02% (w/v) Sodium Azide
<b>Stabilizer:</b>	None

## Shipping & Handling

<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images

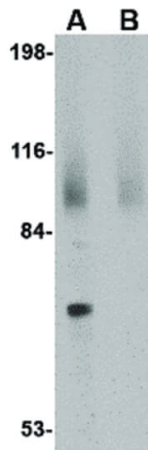


### Western Blot

Immunoblot analysis of T-tubule and SR proteins. a Representative immunoblots of microsomal fractions from LV tissues of each study group that were probed with anti-BIN1, Jph2, Cav1.2 and RyR2 antibodies. Observed molecular weights (kDa) of each protein are indicated. Ponceau red staining of the immunoblots are shown with molecular weight markers. b,c Bar graphs show the quantitation of the luminescence intensity of the indicated protein bands, normalized to Ponceau red staining and expressed relative to the mean sham values. Values are mean  $\pm$  SD for n = 4–6 hearts/group. Statistical analysis using one-way ANOVA with post-hoc Tukey's multiple group comparisons; p-values are indicated.

Fig 6.

PMID: 31810440



### Western Blot

Western Blot of JPH2 antibody. Lane A: 293 cell lysate in the absence of blocking peptide. Lane B: 293 cell lysate in the presence of blocking peptide. Load: 35  $\mu$ g per lane. Primary Antibody: Anti-JPH2 at 2  $\mu$ g/mL. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 74.2 kDa, ~74 kDa for JPH2.

## References

- An S et al. Adverse transverse-tubule remodeling in a rat model of heart failure is attenuated with low-dose triiodothyronine treatment. *Mol Med.* (2019)

## Disclaimer

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