Western blot analysis of JPH3 in Daudi cell lysate with JPH3 antibody at 1 ug/mL in (A) the absence and (B) the presence of blocking peptide.

Immunofluorescence of JPH3 in human brain tissue with JPH3 antibody at 20 ug/mL.

Immunohistochemistry of JPH3 in human brain tissue with JPH3 antibody at 2.5 ug/mL.

**JPH3 Antibody**

**CATALOG NUMBER: 4931**

**Specifications**

**SPECIES REACTIVITY:** Human, Mouse, Rat

**TESTED APPLICATIONS:** ELISA, IF, IHC-P, WB

**APPLICATIONS:** JPH3 antibody can be used for detection of JPH3 by Western blot at 1 ug/mL. Antibody can also be used for immunohistochemistry starting at 2.5 ug/mL. For immunofluorescence start at 20 ug/mL.

Antibody validated: Western Blot in human samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested.

**USER NOTE:** Optimal dilutions for each application to be determined by the researcher.

**POSITIVE CONTROL:**
1) Cat. No. 1224 - Daudi Cell Lysate
2) Cat. No. 10-301 - Human Brain Tissue Slide

**IMMUNOGEN:** JPH3 antibody was raised against a 18 amino acid synthetic peptide near the center of human JPH3.

The immunogen is located within amino acids 410 - 460 of JPH3.

**HOST SPECIES:** Rabbit

**Properties**

**PURIFICATION:** JPH3 Antibody is affinity chromatography purified via peptide column.

**PHYSICAL STATE:** Liquid

**BUFFER:** JPH3 Antibody is supplied in PBS containing 0.02% sodium azide.

**CONCENTRATION:** 1 mg/mL

**STORAGE CONDITIONS:** JPH3 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.

**CLONALITY:** Polyclonal

**ISOTYPE:** IgG

**CONJUGATE:** Unconjugated
Background

JPH3 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. In the CNS, both JPH3 and JPH4 are expressed throughout neural sites and contribute to the subsurface cistern formation in neurons. Mice lacking both JPH3 and JPH4 subtypes exhibit serious symptoms such as impaired learning and memory and are accompanied by abnormal nervous functions. A repeat expansion in JPH3 is associated with Huntington disease-like 2. At least two isoforms of JPH3 are known to exist.

REFERENCES: