



## Nav1.1 (Brain Type I Sodium Channel, Scn1a, BI)

### Catalog number

N0530-05

### Supplier

United States Biological

Voltage-gated sodium channels (Nav) are essential for the generation of action potentials and for cell excitability. Nav channels are activated in response to depolarization and selectively allow flow of Na<sup>+</sup> ions. To date, nine Nav a subunits have been cloned and named Nav1.1-Nav1.9. The Nav channels are classified into two groups according to their sensitivity to Tetrodotoxin (TTX): TTX-sensitive (Nav1.1, Nav1.2, Nav1.3, Nav1.4, Nav1.6 and Nav1.7) and TTX-resistant (Nav1.5, Nav1.8 and Nav1.9) Mammalian sodium channels are heterotrimers, composed of a central, pore-forming a subunit and two auxiliary b subunits. The expression of the a subunit isoforms is developmentally regulated and tissue specific. Sodium channels in the adult central nervous system and heart contain b1 through b4 subunits, whereas sodium channels in adult skeletal muscle have only the b1 subunit.

### Applications

Suitable for use in Western Blot and Immunohistochemistry. Other applications not tested.

### Recommended Dilution

Western Blot (Rat brain membranes): 1:200

Immunohistochemistry: Rat brain sections.

Optimal dilutions to be determined by the researcher.

### Control Peptide

N0530-05P Nav1.1 Control Antigen (Brain Type I Sodium Channel, Scn1a, BI),

### Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months after receipt. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

### Immunogen

Synthetic peptide corresponding to aa465-481 (KY)TAS EHSRE PSAAG RLSD of rat Nav1.1 (Accession P04774). Epitope Location: Intracellular loop between I and II domains. Species sequence homology: human.

### Formulation

Supplied as a liquid in PBS, pH 7.4, 1% BSA, 5% sucrose, 0.025% sodium azide.

### Purity

Purified by affinity chromatography.

### Specificity

Recognizes rat Nav1.1. Species crossreactivity: mouse. Does not cross react with any other sodium channel antigens tested so far.

**Product Type**

Pab

**Source**

rat

**Isotype**

IgG

**Grade**

Affinity Purified

**Applications**

IHC WB

**Crossreactivity**

Mo Rt

**Storage**

-20°C

**Reference**

1. Zhou, D. et al. (1998) J. Cell Biol., 143, 1295. 2. Planells-Cases, R. et al. (2000) Biophys. J. 78, 2878.