

## Product datasheet for **TA329043**

### Scn4a Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide EDKELKDNHILNHVG(C), corresponding to amino acid residues 877-891 of rat Nav1.4. Intracellular loop between domains II and III.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	sodium voltage-gated channel alpha subunit 4
Database Link:	<a href="#">NP_037310</a> <a href="#">Entrez Gene 6329 Human</a> <a href="#">Entrez Gene 25722 Rat</a> <a href="#">P15390</a>



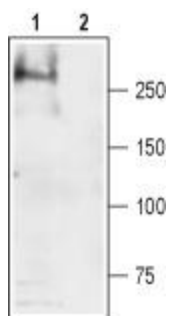
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**Background:**

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. The Nav channels are classified into two groups according to their sensitivity to Tetrodotoxin (TTX): TTX-sensitive and TTX-resistant channels. Mammalian sodium channels are heterotrimers, composed of a central, pore-forming  $\alpha$  subunit and two auxiliary  $\beta$  subunits. The expression of the  $\alpha$  subunit isoform is developmentally regulated and tissue specific. To date, nine Nav  $\alpha$  subunits have been cloned and named Nav1.1-Nav1.9. Nav1.4-5 Sodium channels in the adult central nervous system and heart contain  $\beta$ 1 through  $\beta$ 4 subunits, whereas sodium channels in adult skeletal muscle have only the  $\beta$ 1 subunit. The isoform Nav1.4, is primarily expressed in skeletal muscle. Different missense mutations in the gene for the Nav1.4 are correlated with several muscular diseases such as, Paramyotonia congenita (PMC), PMC without cold paralysis, potassium-aggravating myotonia, and hyperkalemic periodic paralysis.

**Synonyms:**

HYKPP; HYPP; Na(V)1.4; NAC1A; Nav1.4; SkM1

**Product images:**

Western blot analysis of rat skeletal muscle lysate: 1. Anti-Nav1.4 antibody, (1:200). 2. Anti-Nav1.4 antibody, preincubated with the control peptide antigen.