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Anti-Nav1.4 Antibody

Catalog # AP51859

Product Information

Application	WB
Primary Accession	P35499
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	208061

Additional Information

Gene ID	6329
Other Names	Sodium channel protein type 4 subunit alpha; SkM1; Sodium channel protein skeletal muscle subunit alpha; Sodium channel protein type IV subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.4
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Nav1.4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	SCN4A (HGNC:10591)
Function	Pore-forming subunit of Nav1.4, a voltage-gated sodium (Nav) channel that directly mediates the depolarizing phase of action potentials in excitable membranes. Navs, also called VGSCs (voltage- gated sodium channels) or VDSCs (voltage-dependent sodium channels), operate by switching between closed and open conformations depending on the voltage difference across the membrane. In the open conformation they allow Na(+) ions to selectively pass through the pore, along their electrochemical gradient. The influx of Na+ ions provokes membrane depolarization, initiating the propagation of electrical signals throughout cells and tissues (PubMed:12766226, PubMed:15318338, PubMed:16890191, PubMed:17898326, PubMed:18690054, PubMed:19347921, PubMed:25707578, PubMed:26659129, PubMed:26700687, PubMed:29992740, PubMed:30190309). Highly expressed in skeletal muscles, Nav1.4 generates the action potential crucial for muscle contraction (PubMed:16890191,

PubMed:19347921, PubMed:25707578, PubMed:26659129, PubMed:26700687).

Cellular Location Cell membrane; Multi-pass membrane protein

References

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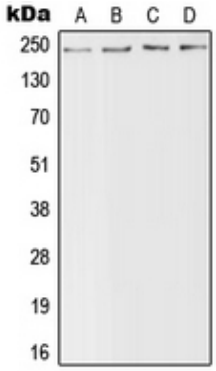
Wang J.,et al.Biochem. Biophys. Res. Commun. 182:794-801(1992).
Tsujino A.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:7377-7382(2003).
McClatchey A.I.,et al.Hum. Mol. Genet. 1:521-527(1992).
Zody M.C.,et al.Nature 440:1045-1049(2006).

Images



Western blot analysis of Nav1.4 expression in MCF7 (A), NIHC3T3 (B), H9C2 (C), mouse brain (D) whole cell lysates. (Predicted band size: 208 kD; Observed band size: 208 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.