



Na⁺ CP type II β (h3): 293T Lysate: sc-170332

BACKGROUND

Voltage-gated sodium channels are selective ion channels that regulate the permeability of sodium ions in excitable cells. During the propagation of an action potential, sodium channels allow an influx of sodium ions, which rapidly depolarizes the cell. Na⁺ CP type II β (sodium channel, voltage-gated, type II, β), also known as SCN2B, is a 215 amino acid single-pass type I membrane protein that plays a critical role in the expression and assembly of the heterotrimeric complex of the sodium channel and interacts with Tenascin-R to influence the clustering and regulation of sodium channels at nodes of Ranvier. Expressed specifically in brain, Na⁺ CP type II β contains one Ig-like C2-type (immunoglobulin-like) domain and is encoded by a gene that maps to human chromosome 11q23.3 and mouse chromosome 9 A5.2.

REFERENCES

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3. Eubanks, J., et al. 1997. Structure and chromosomal localization of the β 2 subunit of the human brain sodium channel. *Neuroreport* 8: 2775-2779.
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5. Chen, C., et al. 2002. Reduced sodium channel density, altered voltage dependence of inactivation, and increased susceptibility to seizures in mice lacking sodium channel β 2-subunits. *Proc. Natl. Acad. Sci. USA* 99: 17072-17077.
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CHROMOSOMAL LOCATION

Genetic locus: SCN2B (human) mapping to 11q23.3.

PRODUCT

Na⁺ CP type II β (h3): 293T Lysate represents a lysate of human Na⁺ CP type II β transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Na⁺ CP type II β (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Na⁺ CP type II β antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.