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Product Information

Anti-Sodium Channel ASIC4

produced in rabbit, affinity isolated antibody

Catalog Number **S1072**

Product Description

Anti-Sodium Channel ASIC4 (SPASIC, ACCN4) is produced in rabbit using as immunogen the peptide CKIKFAEEDAKPKEKEAGDE corresponding to residues 7-26 of N-terminal rat ASIC4. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-ASIC4 recognizes rat Accn4 (Gene ID: 63882) by immunoblotting. Rat Accn4 is 100% homologous with mouse and human Accn4. Staining of the ASIC4 band is specifically inhibited with the immunizing peptide.

Acid-sensing ion channels (ASICs) are sodium channels activated by external protons. ASIC4 is a member of the ASIC family that also includes ASIC1, ASIC2 and ASIC3. The ASIC family is part of a large channel superfamily known as degenerin/epithelial sodium channels (DEG/ENaC).

The functional ASIC channel is composed of 4 subunits, which can form either a homo- or heterotetramer. ASIC4 protein does not appear to function as a proton-gated channel when expressed alone in heterologous systems and therefore a modulatory role for this subunit has been proposed.

ASIC4 protein is expressed in brain, pituitary gland, spinal cord and inner ear. The functional significance of ASIC4 expression in these tissues is under investigation.

Reagent

Supplied as a lyophilized powder from phosphate buffered saline, pH 7.4, containing 1% BSA and 0.05% sodium azide.

Reconstitution

Reconstitute the lyophilized powder with 50 μ L or 200 μ L deionized water, depending on package size. Further dilutions should be made using a carrier protein such as BSA (1-3%).

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Lyophilized powder can be stored intact at room temperature for several weeks. For extended storage, it should be stored at -20°C or below. The reconstituted solution can be stored at 2-8 $^{\circ}\text{C}$ for up to 2 weeks. For longer storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. Centrifuge before use. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

Immunoblotting: a recommended dilution of 1:200 to 1:500 was determined using rat brain lysate, ND7/23 cell line lysate (mouse neuroblastoma x rat DRG neuron hybrid cell line) and rat dorsal root ganglion (DRG) lysate

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Grunder, S. *et al.*, *Neuroreport*, **11**, 1607 (2000).
2. Akopian, A.N. *et al.*, *Neuroreport* **11**, 2217 (2000).
3. Kellenberger, S. *et al.*, *Physiol. Rev.* **82**, 735 (2002).

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