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# ACCN2 Antibody (C-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP9270b**

## Specification

### ACCN2 Antibody (C-term) - Product Information

| | |
|---|---|
| Application | **WB, IHC-P, FC,E** |
| Primary Accession | P78348 |
| Other Accession | P55926, Q6NXK8, Q1XA76 |
| Reactivity | **Human** |
| Predicted | **Chicken, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **59909** |
| Antigen Region | **500-526** |

### ACCN2 Antibody (C-term) - Additional Information

**Gene ID** 41

**Other Names**
Acid-sensing ion channel 1, ASIC1, Amiloride-sensitive cation channel 2, neuronal, Brain sodium channel 2, BNaC2, ASIC1, ACCN2, BNAC2

**Target/Specificity**
This ACCN2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 500-526 amino acids from the C-terminal region of human ACCN2.

**Dilution**
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
ACCN2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### ACCN2 Antibody (C-term) - Protein Information

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**Name** ASIC1

**Synonyms** ACCN2, BNAC2

**Function** Isoform 2 and isoform 3 function as proton-gated sodium channels; they are activated by a drop of the extracellular pH and then become rapidly desensitized. The channel generates a biphasic current with a fast inactivating and a slow sustained phase. Has high selectivity for sodium ions and can also transport lithium ions with high efficiency. Isoform 2 can also transport potassium, but with lower efficiency. It is nearly impermeable to the larger rubidium and cesium ions. Isoform 3 can also transport calcium ions. Mediates glutamate- independent Ca(2+) entry into neurons upon acidosis. This Ca(2+) overloading is toxic for cortical neurons and may be in part responsible for ischemic brain injury. Heteromeric channel assembly seems to modulate channel properties. Functions as a postsynaptic proton receptor that influences intracellular Ca(2+) concentration and calmodulin-dependent protein kinase II phosphorylation and thereby the density of dendritic spines. Modulates activity in the circuits underlying innate fear.

**Cellular Location**
Cell membrane; Multi-pass membrane protein Note=Localizes in synaptosomes at dendritic synapses of neurons Colocalizes with DLG4 (By similarity).

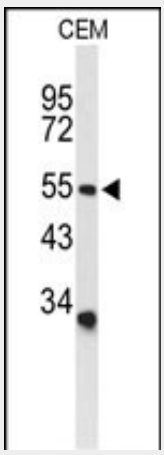
**Tissue Location**
Expressed in most or all neurons.

## ACCN2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## ACCN2 Antibody (C-term) - Images




Western blot analysis of ACCN2 Antibody (C-term) (Cat. #AP9270b) in CEM cell line lysates (35ug/lane). ACCN2 (arrow) was detected using the purified Pab.

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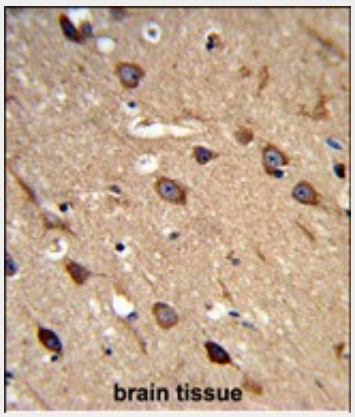
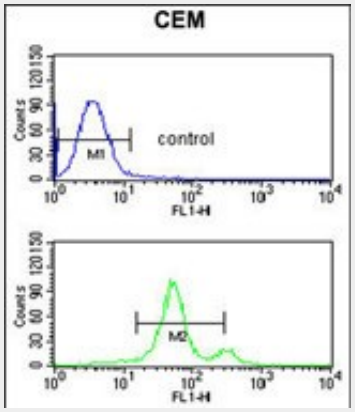



Formalin-fixed and paraffin-embedded human brain tissue reacted with ACCN2 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.




ACCN2 Antibody (C-term) (Cat. #AP9270b) flow cytometric analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## ACCN2 Antibody (C-term) - Background

ACCN2 encodes a member of the degenerin/epithelial sodium channel (DEG/ENaC) superfamily. The members of this family are amiloride-sensitive sodium channels that contain intracellular N and C termini, 2 hydrophobic transmembrane regions, and a large extracellular loop, which has many cysteine residues with conserved spacing. The member is expressed in most if not all brain neurons, and it may be an ion channel subunit; however, its function as an ion channel remains unknown.

## ACCN2 Antibody (C-term) - References

Sherwood,T., et.al., J. Biol. Chem. 284 (41), 27899-27907 (2009)
Kapoor,N., et.al., J. Biol. Chem. 284 (36), 24526-24541 (2009)
Samways,D.S., et.al., Cell Calcium 45 (4), 319-325 (2009)