

# Rabbit Anti-ACCN2 antibody

SL2586R

Product Name:	ACCN2
Chinese Name:	酸敏感离子通道1抗体
Alias:	ASIC1; Acid sensing ion channel 1; Acid sensing ion channel 1a protein; Acid sensing ion channel; Acid-sensing ion channel 1; AI843610; ASIC1_HUMAN; Acid-sensing ion channel 1; Amiloride-sensitive cation channel 2, neuronal; Brain sodium channel 2; BNaC2; BNAC2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Cow, Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-F=1:400-800ICC=1:100-500IF=1:100-
	500 (Paraffin sections need antigen repair)
	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	58kDa
<b>Cellular localization:</b>	The cell membrane
Form:	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ASIC1:301- 400/526 <extracellular></extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Cation channel with high affinity for sodium, which is gated by extracellular protons and inhibited by the diuretic amiloride. Also permeable for $Ca(2+)$ , $Li(+)$ and $K(+)$ . Generates a biphasic current with a fast inactivating and a slow sustained phase.

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.

## Function:

Cation channel with high affinity for sodium, which is gated by extracellular protons and inhibited by the diuretic amiloride. Also permeable for Ca(2+), Li(+) and K(+). Generates a biphasic current with a fast inactivating and a slow sustained phase. 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.

# Subunit:

Homotrimer or heterotrimer with other ASIC proteins. Interacts with PRKCABP and ACCN1. Interacts with STOM.

#### Subcellular Location:

Cell membrane; Multi-pass membrane protein. Note=Localizes in synaptosomes at dendritic synapses of neurons. Colocalizes with DLG4.

# **Tissue Specificity:**

Expressed in brain areas receiving strong excitatory corticofugal input. In hippocampus, expressed in the hilus of the dentate gyrus. In the cerebral cortex expressed in anterior and posterior cingulate cortex, sensory and motor cortices. In the sensory cortex strongest expression is detected in the whisker barrel field. In sensorimotor and cingulate cortex expression is elevated in layer III. Also expressed in basal ganglia, striatum, ventral pallidum, olfactory tubercle, and nucleus accumbens. Weakly expressed in thalamus with the exception of the habenula and the medial septal nuclei. In olfactory bulb, preferentially expressed in the glomerular layer, within glomeruli. Expressed in cerebellum in the molecular and granule cell layers. Strongly expressed in amygdala complex, particularly in the lateral and basolateral nuclei. Isoform 1 is more abundant in brain compared to isoform 2 (at protein level). Expressed in the nodose ganglion and dorsal root ganglion. Expressed in dendritic spine cells.

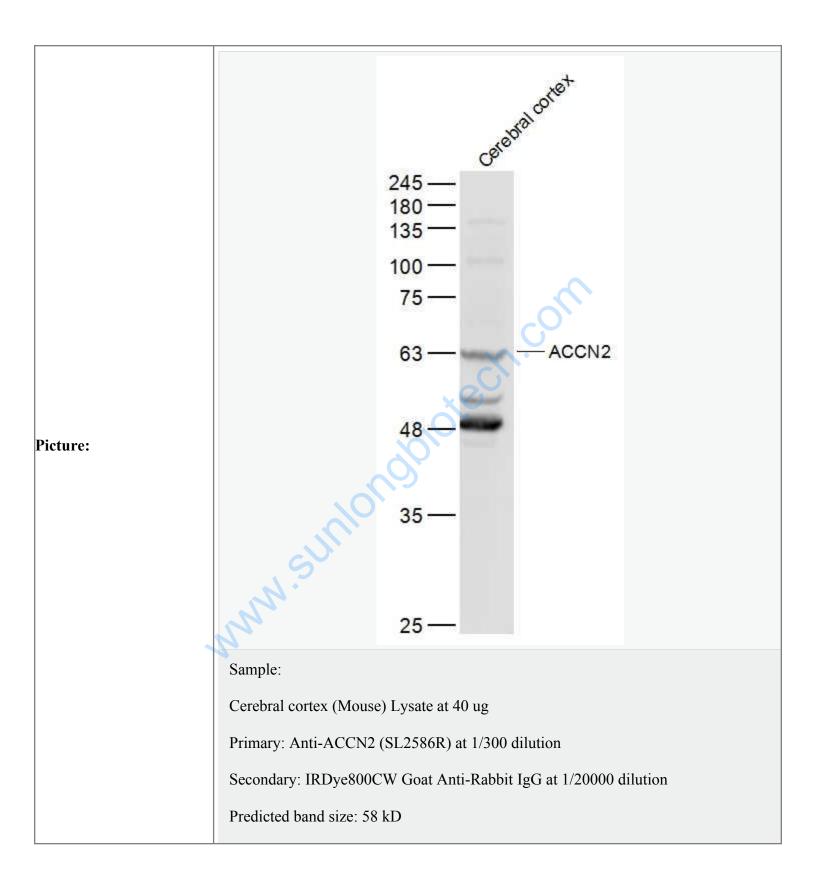
### **Post-translational modifications:**

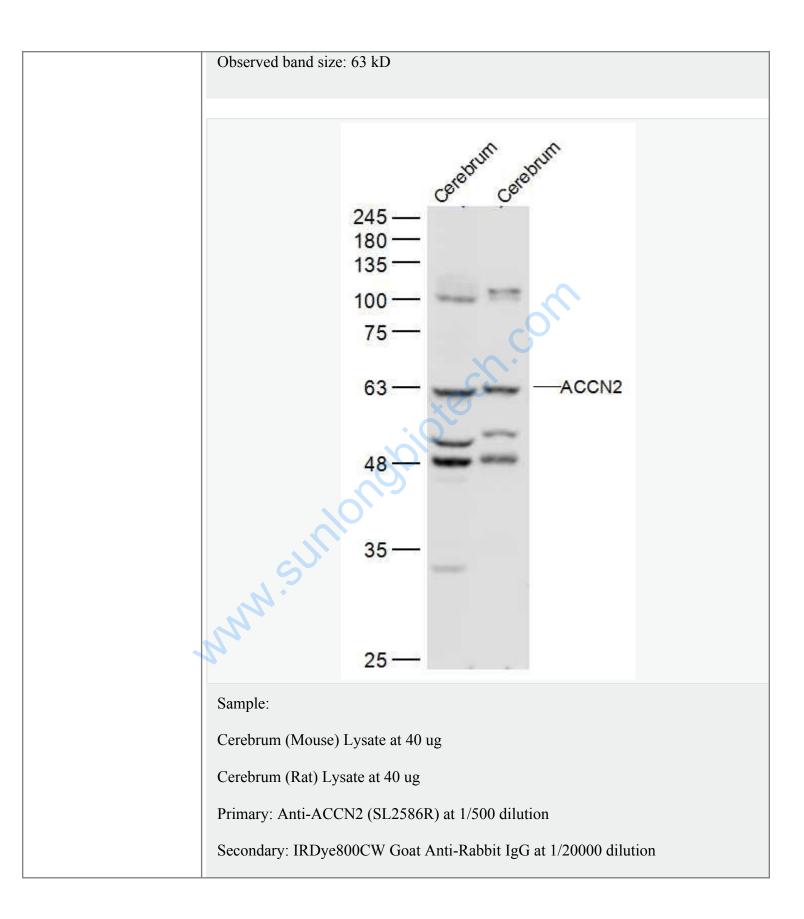
Phosphorylation by PKA regulates interaction with PRKCABP and subcellular location. Phosphorylation by PKC may regulate the channel.

#### Similarity:

Belongs to the amiloride-sensitive sodium channel (TC 1.A.6) family. ACCN2

subfamily.
SWISS: P78348
Gene ID: 41
Database links:
Entrez Gene: 41Human
Entrez Gene: 11419Mouse
Entrez Gene: 79123Rat
Omim: 602866Human
Entrez Gene: 11419Mouse Entrez Gene: 79123Rat Omim: 602866Human SwissProt: P78348Human SwissProt: Q6NXK8Mouse SwissProt: P55926Rat Unigene: 274361Human Unigene: 440107Mouse Unigene: 37385Rat
SwissProt: Q6NXK8Mouse
SwissProt: P55926Rat
Unigene: 274361Human
Unigene: 440107Mouse
Unigene: 37385Rat
Important Note: This product as sumplied is intended for research use only, not for use in human
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
ASIC1也是ASICs一类胞外质子激活阳离子Channel
protein, 主要分布于神经系统, 参与神经生理生化及神经损伤与退变的很多生理功
能。





Predicted band size: 58 kD
Observed band size: 63 kD

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