ARG22245
anti-ASIC1 antibody [S271-44]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [S271-44] recognizes ASIC1
Tested Reactivity	Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Specificity	Detects ~60kDa.
Host	Mouse
Clonality	Monoclonal
Clone	S271-44
Isotype	IgG1
Target Name	ASIC1
Species	Mouse
Immunogen	Fusion protein amino acids 460-526 (Cytoplasmic C-terminus) of Mouse ASIC1
Conjugation	Un-conjugated
Alternate Names	ACCN2; ASIC; Amiloride-sensitive cation channel 2, neuronal; ASIC1; BNaC2; Acid-sensing ion channel 1; Brain sodium channel 2

Application Instructions

Application table

Application	Dilution
ICC/IF	Assay-dependent
IHC-P	Assay-dependent
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

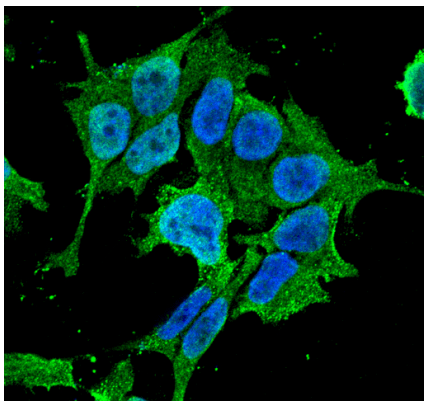
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 0.09% Sodium azide and 50% Glycerol
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

	cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

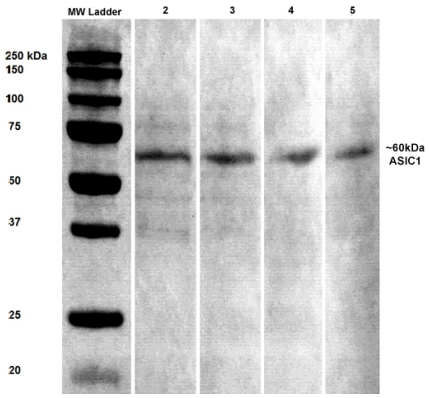
Database links	GeneID: 11419 Mouse GeneID: 79123 Rat Swiss-port # P55926 Rat Swiss-port # Q6NXK8 Mouse
Gene Symbol	Asic1
Gene Full Name	acid-sensing (proton-gated) ion channel 1
Background	This gene encodes a member of the acid-sensing ion channel (ASIC) family of proteins, which are part of the degenerin/epithelial sodium channel (DEG/ENaC) superfamily. Members of the ASIC family are sensitive to amiloride and function in neurotransmission. The encoded proteins function in learning, pain transduction, touch sensation, and development of memory and fear. Alternatively spliced transcript variants have been described. [provided by RefSeq, Feb 2012]
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. Isoform 1 does not display proton-gated cation channel activity. [UniProt]
Calculated Mw	60 kDa
PTM	Phosphorylation by PKA regulates interaction with PRKCABP and subcellular location. Phosphorylation by PKC may regulate the channel.
Cellular Localization	Cell membrane

Images



ARG22245 anti-ASIC1 antibody [S271-44] ICC/IF image

Immunofluorescence: Human Neuroblastoma cell line SK-N-BE. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: ARG22245 anti-ASIC1 antibody [S271-44] at 1:100 for 60 min at RT. Secondary Antibody: Goat anti-Mouse ATTO 488 at 1:100 for 60 min at RT. DAPI (blue) nuclear stain.



ARG22245 anti-ASIC1 antibody [S271-44] WB image

Western blot: 1) MW ladder, and 20 µg of Rat brain lysates stained with ARG22245 anti-ASIC1 antibody [S271-44] (60 min, RT) at 2) 1:100, 3) 1:250, 4) 1:500, 5) 1:1000 dilutions. Block: 5% milk + TBST 1hr at RT.