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SARM1 Rabbit pAb

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Catalog # AP59096

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6SZW1
Reactivity	Human
Predicted	Rat, Pig, Dog, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79388
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SARM1
Epitope Specificity	321-420/724
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SARM, also known as SAMD2, SARM1 or KIAA0524, is a 724 amino acid protein that localizes to the cytoplasm and contains one TIR domain and two sterile alpha motif (SAM) domains. Expressed predominately in liver and kidney and present at lower levels in placenta, SARM interacts with TICAM-1 and, via this interaction, blocks the transcriptional activation activity of TICAM-1 and functions as a negative regulator of Toll-like receptor signaling. Additionally, SARM is thought to be involved in innate immune responses and may also play a role in the negative regulation of NF x B activation. SARM exists as two alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 17.

Additional Information

Gene ID	23098
Other Names	NAD(+) hydrolase SARM1, NADase SARM1, hSARM1, 3.2.2.6, NADP(+) hydrolase SARM1, 3.2.2.-, Sterile alpha and Armadillo repeat protein, Sterile alpha and TIR motif-containing protein 1 {ECO:0000303|PubMed:18089857, ECO:0000303|Ref.2}, Sterile alpha motif domain-containing protein 2, MyD88-5, SAM domain-containing protein 2 {ECO:0000312|HGNC:HGNC:17074}, Tir-1 homolog, HsTIR, SARM1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

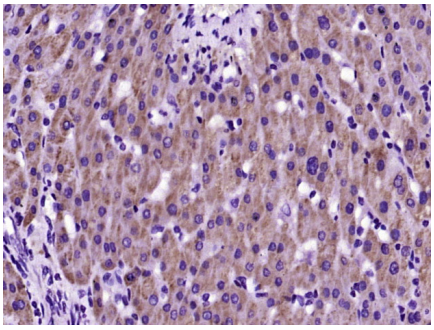
Protein Information

Name	SARM1
Function	NAD(+) hydrolase, which plays a key role in axonal degeneration following injury by regulating NAD(+) metabolism (PubMed:25908823, PubMed:27671644, PubMed:28334607). Acts as a negative regulator of MYD88- and TRIF-dependent toll-like receptor signaling pathway by promoting Wallerian degeneration, an injury-induced form of programmed subcellular death which involves degeneration of an axon distal to the injury site (PubMed:15123841, PubMed:16964262, PubMed:20306472, PubMed:25908823). Wallerian degeneration is triggered by NAD(+) depletion: in response to injury, SARM1 is activated and catalyzes cleavage of NAD(+) into ADP-D-ribose (ADPR), cyclic ADPR (cADPR) and nicotinamide; NAD(+) cleavage promoting cytoskeletal degradation and axon destruction (PubMed:25908823, PubMed:28334607, PubMed:30333228, PubMed:31128467, PubMed:31439792, PubMed:31439793, PubMed:32049506, PubMed:32828421, PubMed:33053563). Also able to hydrolyze NADP(+), but not other NAD(+)-related molecules (PubMed:29395922). Can activate neuronal cell death in response to stress (PubMed:20306472). Regulates dendritic arborization through the MAPK4-JNK pathway (By similarity). Involved in innate immune response: inhibits both TICAM1/TRIF- and MYD88-dependent activation of JUN/AP-1, TRIF-dependent activation of NF-kappa-B and IRF3, and the phosphorylation of MAPK14/p38 (PubMed:16964262). Acts as a non-self dsDNA sensor in a sequence-independent manner to elicit NAD(+) degradation and thus to promote programmed cell death (PubMed:41138726).
Cellular Location	Cytoplasm. Cell projection, axon {ECO:0000250|UniProtKB:Q6PDS3}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q6PDS3}. Synapse {ECO:0000250|UniProtKB:Q6PDS3} Mitochondrion. Note=Associated with microtubules {ECO:0000250|UniProtKB:Q6PDS3}
Tissue Location	Predominantly expressed in brain, kidney and liver. Expressed at lower level in placenta.

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (Human liver tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SARM1) Polyclonal Antibody, Unconjugated (AP59096) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.