10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# SARM1 Rabbit pAb

SARM1 Rabbit pAb
Catalog # AP59096

## Product Information

| | |
|---|---|
| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | Q6SZW1 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Dog, Pig, Horse, Rabbit |
| **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. |
| **SIMILARITY** | Contains 2 SAM (sterile alpha motif) domains.Contains 1 TIR domain. |
| **SUBUNIT** | Interacts with TICAM1/TRIF and thereby interferes with TICAM1/TRIF function. |
| **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 |
| **Target/Specificity** | Predominantly expressed in kidney and liver. Expressed at lower level in |

placenta.

| | |
|---|---|
| **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

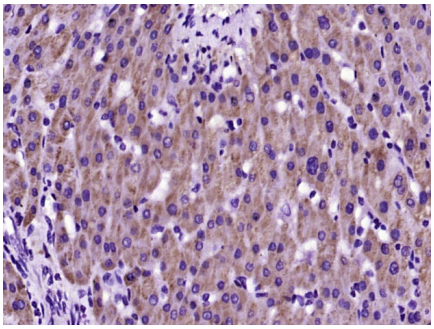
| | |
|---|---|
| **Name** | SARM1 |
| **Function** | NAD(+) hydrolase, which plays a key role in axonal degeneration following injury by regulating NAD(+) metabolism (PubMed:25908823, PubMed:27671644, PubMed:28334607). Acts as a negative regulator of MYD88- and TRIF-dependent toll-like receptor signaling 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). |
| **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

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.

## 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.