

ARG64063 anti-SIRT1 antibody

Package: 100 µg
Store at: -20°C

Summary

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| Product Description | Goat Polyclonal antibody recognizes SIRT1 |
| Tested Reactivity | Ms |
| Predict Reactivity | Hu, Rat, Dog |
| Tested Application | WB |
| Host | Goat |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | SIRT1 |
| Species | Human |
| Immunogen | C-EITEKPPRTQKE |
| Conjugation | Un-conjugated |
| Alternate Names | 75SirT1; SIR2L1; SIR2alpha; SIR2-like protein 1; EC 3.5.1.-; NAD-dependent protein deacetylase sirtuin-1; SIR2; hSIRT1; Regulatory protein SIR2 homolog 1; hSIR2 |

Application Instructions

| Application table | Application | Dilution |
|-------------------|--|-------------|
| | WB | 1 - 3 µg/ml |
| Application Note | WB: Recommend incubate at RT for 1h. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. | |

Properties

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| Form | Liquid |
| Purification | Purified from goat serum by antigen affinity chromatography. |
| Buffer | Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 0.5% BSA |
| Concentration | 0.5 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 or below. 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. |

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| Database links | GeneID: 93759 Mouse Swiss-port # Q923E4 Mouse |
| Background | This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. The protein encoded by this gene is included in class I of the sirtuin family. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2008] |
| Research Area | Cell Biology and Cellular Response antibody; Cell Death antibody; Controls and Markers antibody; Gene Regulation antibody; Metabolism antibody; Microbiology and Infectious Disease antibody |
| Calculated Mw | 82 kDa |
| PTM | Methylated on multiple lysine residues; methylation is enhanced after DNA damage and is dispensable for deacetylase activity toward p53/TP53. Phosphorylated. Phosphorylated by STK4/MST1, resulting in inhibition of SIRT1-mediated p53/TP53 deacetylation. Phosphorylation by MAPK8/JNK1 at Ser-27, Ser-47, and Thr-530 leads to increased nuclear localization and enzymatic activity. Phosphorylation at Thr-530 by DYRK1A and DYRK3 activates deacetylase activity and promotes cell survival. Phosphorylation by mammalian target of rapamycin complex 1 (mTORC1) at Ser-47 inhibits deacetylation activity. Phosphorylated by CaMK2, leading to increased p53/TP53 and NF-kappa-B p65/RELA deacetylation activity (By similarity). Phosphorylation at Ser-27 implicating MAPK9 is linked to protein stability. There is some ambiguity for some phosphosites: Ser-159/Ser-162 and Thr-544/Ser-545. Proteolytically cleaved by cathepsin B upon TNF-alpha treatment to yield catalytic inactive but stable SirtT1 75 kDa fragment (75SirT1). S-nitrosylated by GAPDH, leading to inhibit the NAD-dependent protein deacetylase activity. |

Images



ARG64063 anti-SIRT1 antibody WB image

Western Blot: Mouse fetal Brain lysate (35 µg protein in RIPA buffer) stained with ARG64063 anti-SIRT1 antibody at 1 µg/ml dilution.



ARG64063 anti-SIRT1 antibody WB image

Western blot: 35 µg of NIH/3T3 cell lysate (in RIPA buffer) stained with ARG64063 anti-SIRT1 antibody at 1 µg/ml dilution and incubated at RT for 1 hour.