

ARG59376 anti-SIRT2 antibody

Package: 100 μl Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SIRT2
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	lgG
Target Name	SIRT2
Species	Human
Immunogen	Recombinant protein of Human SIRT2
Conjugation	Un-conjugated
Alternate Names	SIR2-like protein 2; SIR2L2; NAD-dependent protein deacetylase sirtuin-2; EC 3.5.1; SIR2; SIR2L; Regulatory protein SIR2 homolog 2

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recomme should be determined by the scie	ended starting dilutions and the optimal dilutions or concentrations entist.

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
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.

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Bioinformation

Gene Symbol	SIRT2
Gene Full Name	sirtuin 2
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. Several transcript variants are resulted from alternative splicing of this gene. [provided by RefSeq, Jul 2010]
Function	NAD-dependent protein deacetylase, which deacetylates internal lysines on histone and alpha-tubulin as well as many other proteins such as key transcription factors. Participates in the modulation of multiple and diverse biological processes such as cell cycle control, genomic integrity, microtubule dynamics, cell differentiation, metabolic networks, and autophagy. Plays a major role in the control of cell cycle progression and genomic stability. Functions in the antephase checkpoint preventing precocious mitotic entry in response to microtubule stress agents, and hence allowing progression through mitosis. Associates both with chromatin at transcriptional start sites (TSSs) and enhancers of active genes. Plays a role in cell cycle and chromatin compaction through epigenetic modulation of the regulation of histone H ⁴ tys-20' methylation (H4X20me1 during early mitosis. Secondard explaines histone H4 at 'tys-16' (H4K16ac) between the G2/M transition and metaphase enabling H4X20me1 deposition by SETD8 leading to ulterior levels of H4X20me2 and H4X20me3 deposition through the mitotic S-phase progression. Deacetylates SETD8 modulating SETD8 chromatin localization during the mitotic stress response. Deacetylates SETD8 modulating SETD8 chromatin localization during the mitotic stress response. Deacetylates salo histone H3 at 'tys-57' (H3X56ac) during the mitotic G2/M transition. Upon bacterium Listeria monocytogenes infection, deacetylates 'lys-18' of histone H3 in a receptor tyrosine kinase MET- and P18/Akt-dependent manner, thereby inhibiting transcriptional activity and promoting late stages of listeria infection. During ooxyte meiosis progression, may deacetylate histone H4 tys-16' (H4K16ac) and alpha-tubulin, regulating spindle assembly and chromosome alignment by influencing microtubule dynamics and kinetochore function. Deacetylates PARD3 and participates in the regulation of Schwann cell peripheral myelination. Deacetylates PARD3 and participates in the regulation of Schwann cell peripher
Calculated Mw	43 kDa
PTM	Phosphorylated at phosphoserine and phosphothreonine. Phosphorylated at Ser-368 by a mitotic kinase CDK1/cyclin B at the G2/M transition; phosphorylation regulates the delay in cell-cycle

progression. Phosphorylated at Ser-368 by a mitotic kinase G1/S-specific cyclin E/Cdk2 complex; phosphorylation inactivates SIRT2-mediated alpha-tubulin deacetylation and thereby negatively regulates cell adhesion, cell migration and neurite outgrowth during neuronal differentiation. Phosphorylated by cyclin A/Cdk2 and p35-Cdk5 complexes and to a lesser extent by the cyclin D3/Cdk4 and cyclin B/Cdk1, in vitro. Dephosphorylated at Ser-368 by CDC14A and CDC14B around early anaphase.

Acetylated by EP300; acetylation leads both to the decreased of SIRT2-mediated alpha-tubulin deacetylase activity and SIRT2-mediated down-regulation of TP53 transcriptional activity.

Ubiquitinated. [UniProt]

Images



ARG59376 anti-SIRT2 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG59376 anti-SIRT2 antibody.



ARG59376 anti-SIRT2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human colon carcinoma stained with ARG59376 anti-SIRT2 antibody at 1:100 dilution.