

ARG65697 anti-SIRT1 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SIRT1
Tested Reactivity	Hu, Ms
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SIRT1
Species	Human
Immunogen	KLH-conjugated synthetic peptide around the C-terminus of Human SIRT1.
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
	FACS	1:100 - 1:200
	IHC-P	1:200
	WB	1:1000 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Hela, F9, Jurkat, human lung carcinoma tissue, human colon carcinoma tissue	

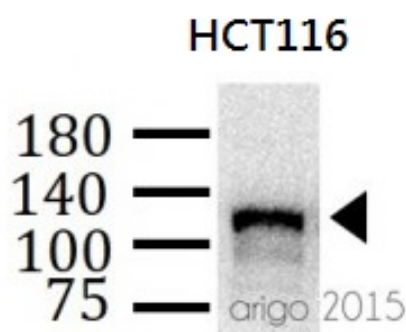
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	1*TBS (pH 7.4), 0.05% Sodium azide, 0.5% BSA and 40% Glycerol
Preservative	0.05% Sodium azide
Stabilizer	0.5% BSA, 40% 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.

Bioinformation

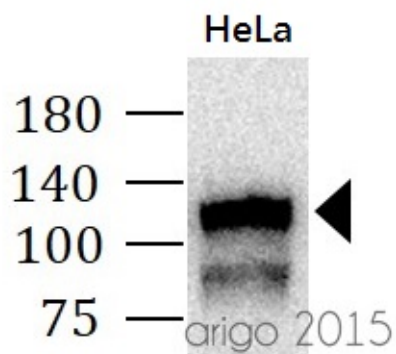
Database links	GeneID: 23411 Human GeneID: 93759 Mouse Swiss-port # Q923E4 Mouse Swiss-port # Q96EB6 Human
Gene Symbol	SIRT1
Gene Full Name	sirtuin 1
Background	This gene encodes a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized 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



ARG65697 anti-SIRT1 antibody WB image

Western blot: 30 µg of HCT116 cell lysate stained with ARG65697 anti-SIRT1 antibody at 1:1000 dilution.



ARG65697 anti-SIRT1 antibody WB image

Western blot: 30 µg of HeLa cell lysate stained with ARG65697 anti-SIRT1 antibody at 1:1000 dilution.