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SIRT1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1439a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	Q96EB6
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1F3
Isotype	IgG1
Calculated MW	81681 Da
Description	The Sir2 protein in yeast is known to function in transcriptional silencing processes through the deacetylation of histones H3 and H4. The more recently described human homologue of Sir2, known as SIRT1, has been found to associate with the tumor suppressor protein p53.SIRT1 binds and deacetylates p53 with specificity for its C-terminal Lys382 residue in response to the upregulation of promyelocytic leukemia protein (PML) nuclear bodies or oncogenic Ras. The deacetylation of p53 SIRT1 has been shown to negatively regulate p53-mediated transcription, preventing cellular senescence and apoptosis induced by DNA damage and stress.SIRT1 has the closest homology to the yeast Sir2p and is widely expressed in fetal and adult tissues, with high expression in heart, brain and skeletal muscle and low expression in lung and placenta. SIRT1 regulates the p53-dependent DNA damage response pathway by binding to and deacetylating p53, specifically at Lysine 382.
Immunogen	Purified recombinant fragment of human SIRT1 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Other Names	NAD-dependent protein deacetylase sirtuin-1, hSIRT1, 3.5.1.-, Regulatory protein SIR2 homolog 1, SIR2-like protein 1, hSIR2, SirtT1 75 kDa fragment, 75SirT1, SIRT1, SIR2L1
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SIRT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

References

1. Clin Cancer Res. 2009 Jul 1;15(13):4453-9. 2. Cell. 2009 Jul 23;138(2):389-403. 3. J Biol Chem. 2009 Oct 16;284(42):28762-74.

Images

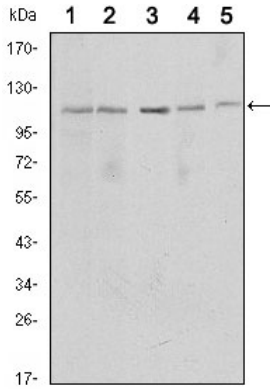

Figure 1: Western blot analysis using SIRT1 mouse mAb against MCF-7 (1), Jurkat (2), Hela (3), HEK293 (4) and A549 (5) cell lysate.

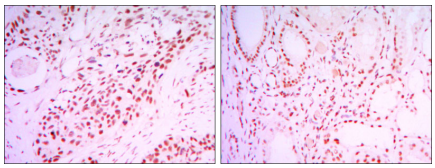

Figure 2: Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and kidney cancer tissues (right) using SIRT1 mouse mAb with DAB staining.

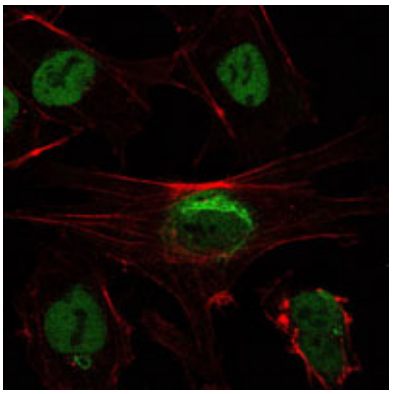

Figure 3: Immunofluorescence analysis of NTERA-2 cells using SIRT1 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

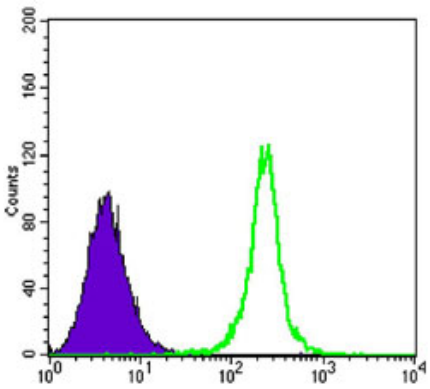

Figure 4: Flow cytometric analysis of K562 cells using SIRT1 mouse mAb (green) and negative control (purple).