

## Product datasheet for **AM06495SU-N**

### **SIRT1 Mouse Monoclonal Antibody [Clone ID: 1F3]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	1F3
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/10000. <b>Western Blot:</b> 1/500 - 1/2000. <b>Flow Cytometry:</b> 1/200 - 1/400. <b>Immunofluorescence:</b> 1/200 - 1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/200 - 1/1000.
Reactivity:	Human, Monkey
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant fragment of Human SIRT1 expressed in E. Coli.
Specificity:	Recognizes SIRT1
Formulation:	State: Ascites State: Ascitic fluid containing 0.03% Sodium Azide.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	120 kDa
Gene Name:	sirtuin 1
Database Link:	<a href="#">Entrez Gene 23411 Human Q96EB6</a>



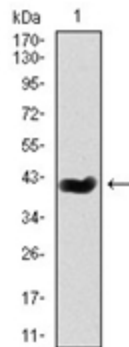
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**Background:**

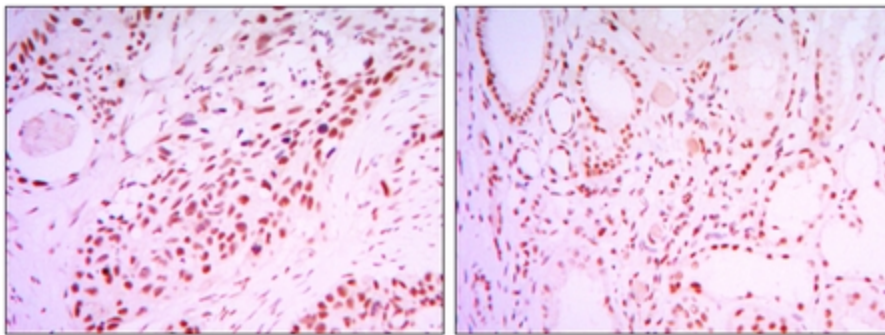
The Sir2 protein in yeast is known to function in transcriptional silencing processes through the deacetylation of histones H3 and H4. The more recently described human homologue of Sir2, known as SIRT1, has been found to associate with the tumor suppressor protein p53. SIRT1 binds and deacetylates p53 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.

**Synonyms:**

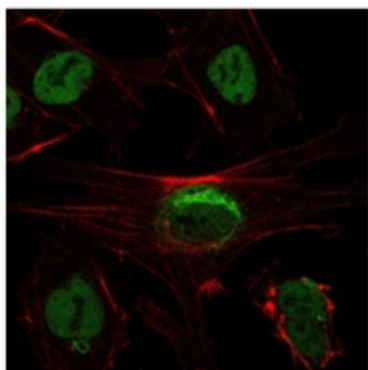
SIRT-1, SIR2-like protein 1, SIR2L1, sirtuin type 1, sirtuin 1, sirtuin-1, SIR2alpha

**Product images:**

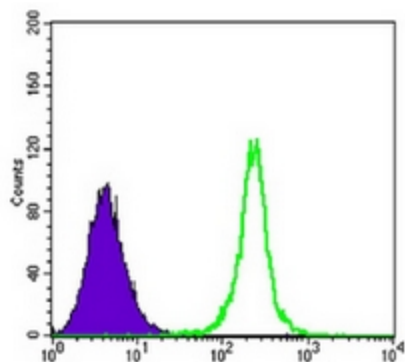
Western blot analysis using SIRT1 antibody Cat.-No AM06495SU-N against MCF-7 (1), Jurkat (2), Hela (3), HEK293 (4) and A549 (5) cell lysate.



Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and kidney cancer tissues (right) using SIRT1 antibody Cat.-No AM06495SU-N with DAB staining.



Immunofluorescence analysis of NTERA-2 cells using SIRT1 antibody Cat.-No AM06495SU-N (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of K562 cells using SIRT1 antibody Cat.-No AM06495SU-N (green) and negative control (purple).