



## Rabbit Anti-Phospho-SIRT1 (Ser47) antibody

SL3393R

<b>Product Name:</b>	Phospho-SIRT1 (Ser47)
<b>Chinese Name:</b>	磷酸化沉默调节蛋白1抗体
<b>Alias:</b>	75SirT1; BA57G10.4; hSIR2; hSIRT1; NAD dependent deacetylase SIRT1; NAD dependent deacetylase sirtuin 1; NAD dependent deacetylase sirtuin 2; Silent mating type information regulation 2; OTTHUMP00000198111; OTTHUMP00000198112; SIR2 like 1; SIR2 like protein 1; SIR2-like protein 1; Regulatory protein SIR2 homolog 1; SIR1_HUMAN; SIR2ALPHA; SIR2alpha protein; SIR2L1; SIR2L2; SIRT 1; SIRT-1; Sirt1; SIRT1 Sir2 like proteins (siruitins) type 1; SIRT1: sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae); sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae); SirtT1 75 kDa fragment; sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae);Sirtuin 1; sirtuin; Sirtuin type 1; Sirtuin type 2.
<b>文献引用</b> PubMed :	<p><b>Specific References(2)</b> SL3393R has been referenced in 2 publications.</p> <p><b>[IF=4.66]</b>Suzuki, Maiko, and John D. Bartlett. "Sirtuin1 and autophagy protect cells from fluoride-induced cell stress." Biochimica et Biophysica Acta (BBA)-Molecular Basis of Disease 1842.2 (2014): 245-255.<b>WB;Mouse, Rat.</b>  <a href="#">PubMed:24296261</a></p> <p><b>[IF=5.74]</b>Suzuki, Maiko, Cheryl Bandoski, and John D. Bartlett. "Fluoride induces oxidative damage and SIRT1/autophagy through ROS-mediated JNK signaling."Free Radical Biology and Medicine (2015).<b>WB;Mouse.</b>  <a href="#">PubMed:26431905</a></p>
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Rabbit,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-

	500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	58/81kDa
<b>Cellular localization:</b>	The nucleuscytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated Synthesised phosphopeptide derived from human SirT1 around the phosphorylation site of Ser47:R(p-S)PG
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	<p>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.</p> <p><b>Function:</b> SirT1 75 kDa fragment: catalytically inactive 75SirT1 may be involved in regulation of apoptosis. May be involved in protecting chondrocytes from apoptotic death by associating with cytochrome C and interfering with apoptosome assembly.</p> <p><b>Subunit:</b> Found in a complex with PCAF and MYOD1 (By similarity). Component of the eNoSC complex, composed of SIRT1, SUV39H1 and RRP8. Interacts with HES1, HEY2 and PML. Interacts with RPS19BP1/AROS. Interacts with KIAA1967/DBC1 (via N-terminus); the interaction disrupts the interaction between SIRT1 and p53/TP53. Interacts with SETD7; the interaction induces the dissociation of SIRT1 from p53/TP53 and increases p53/TP53 activity. Interacts with MYCN, NR1I2, CREBZF, TSC2, TLE1, FOS, JUN, NR0B2, PPARG, NCOR, IRS1, IRS2 and NMNAT1. Interacts with HNF1A; the interaction occurs under nutrient restriction. Interacts with SUZ12; the interaction mediates the association with the PRC4 histone methylation complex which is specific as an association with PCR2 and PCR3 complex variants is not found. Interacts with HIV-1 tat.</p> <p><b>Subcellular Location:</b> Nucleus, PML body. Cytoplasm. Note=Recruited to the nuclear bodies via its interaction</p>

with PML. Colocalized with APEX1 in the nucleus. May be found in nucleolus, nuclear euchromatin, heterochromatin and inner membrane. Shuttles between nucleus and cytoplasm.

SirtT1 75 kDa fragment: Cytoplasm. Mitochondrion.

**Tissue Specificity:**

Widely expressed.

**Post-translational modifications:**

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 (By similarity).

**Similarity:**

Belongs to the sirtuin family.

Contains 1 deacetylase sirtuin-type domain.

**SWISS:**

Q96EB6

**Gene ID:**

23411

**Database links:**

[Entrez Gene: 23411](#)Human

[Entrez Gene: 93759](#)Mouse

[Entrez Gene: 309757](#)Rat

[Omim: 604479](#)Human

[SwissProt: Q96EB6](#)Human

[SwissProt: Q923E4](#)Mouse

[Unigene: 369779](#)Human

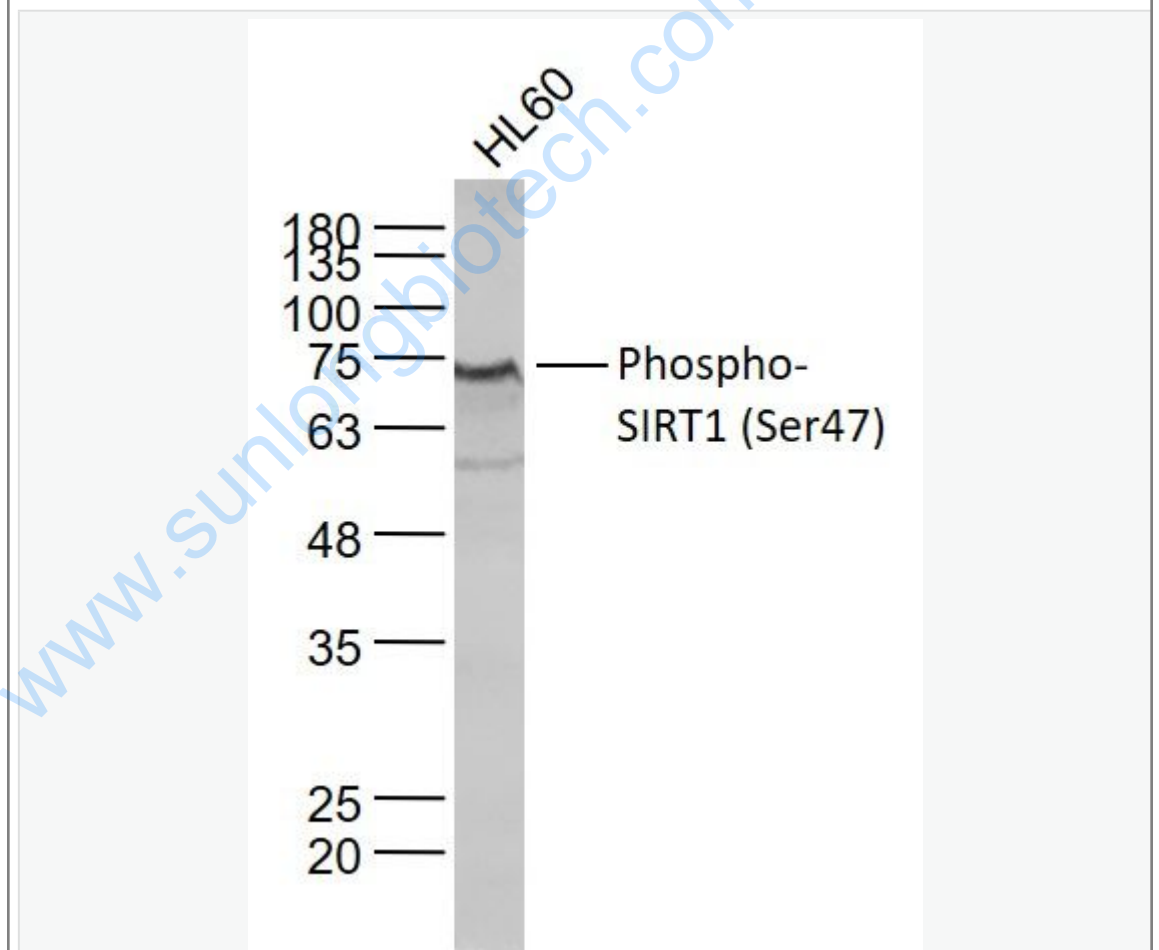
[Unigene: 351459](#)Mouse

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

在Sirtuin蛋白家族中, sirtuin 1参与多种The new supersedes the old活动, 包括DNA的自我保护和修复, 抑制脂质过氧化积累, 抑制其他Apoptosis相关基因的表达以及和细胞寿命相关的活动。限制摄入的热量可以加强SIRT1的表达, 从而延长了寿命。

Picture:



Sample:

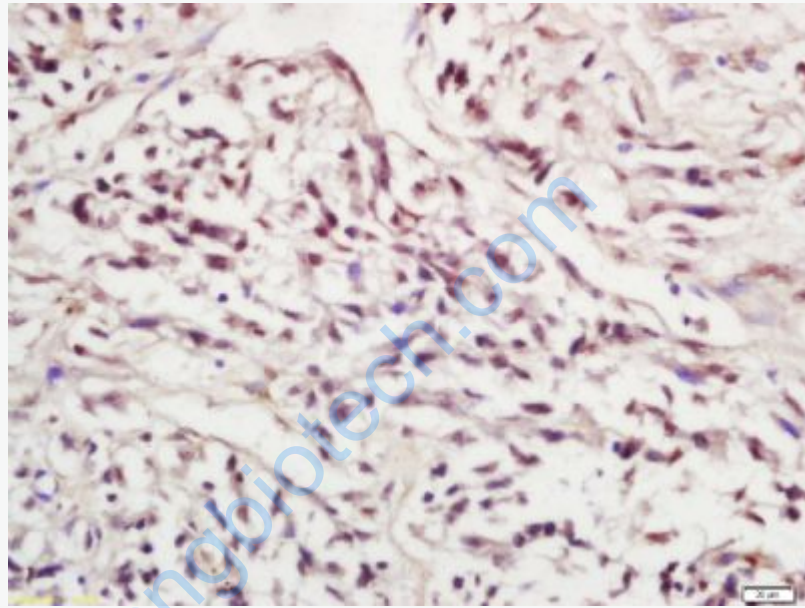
HL60 (Human) Lysate at 30 ug

Primary: Anti-Phospho-SIRT1 (Ser47) (SL3393R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 75/95/120 kD

Observed band size: 75 kD

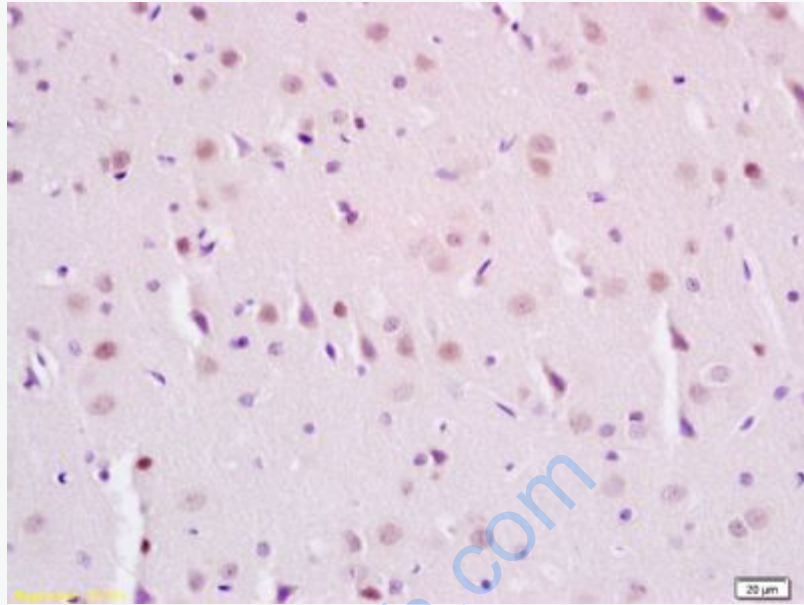


Tissue/cell: human lung cancer; 4% Paraformaldehyde-fixed and paraffin-embedded;

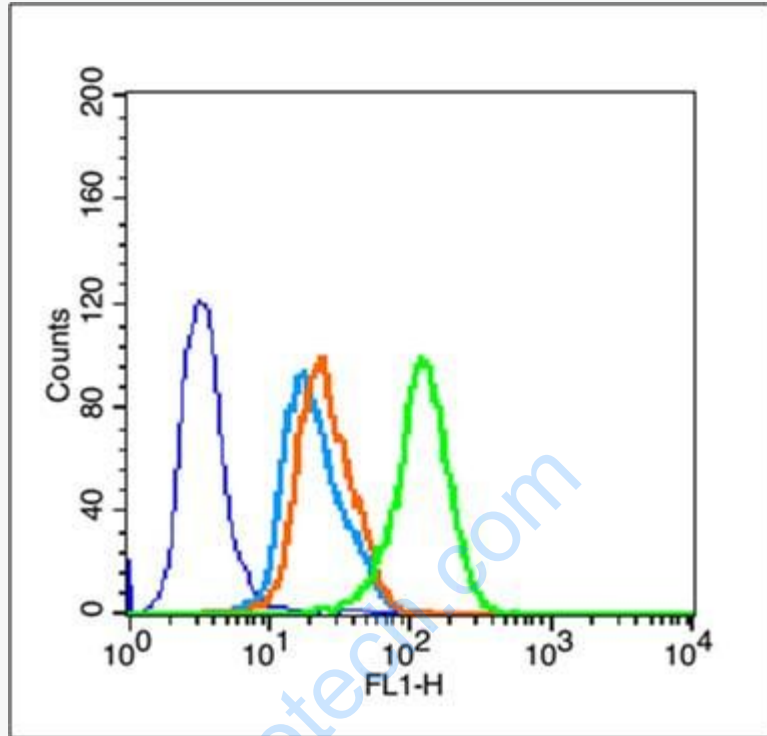
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Phospho-SIRT1 (Ser47) Polyclonal Antibody,

Unconjugated(SL3393R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-Phospho-SIRT1(Ser47) Polyclonal Antibody,  
Unconjugated(SL3393R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): MCF 7 (fixed with 70% methanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody (green line): Rabbit Anti-Phospho-SIRT1(Ser47) antibody (SL3393R), Dilution: 3µg /10<sup>5</sup> cells.

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC, Dilution: 1µg /test.