

## Anti-Phospho-SIRT1 (Thr530) Antibody (4S678)

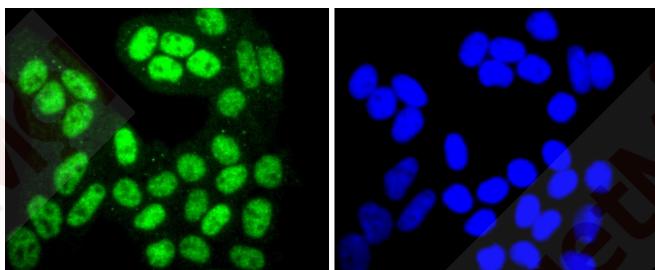
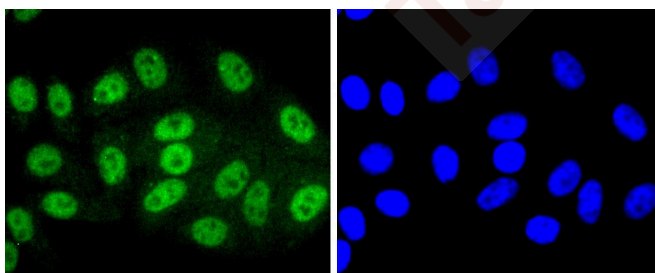
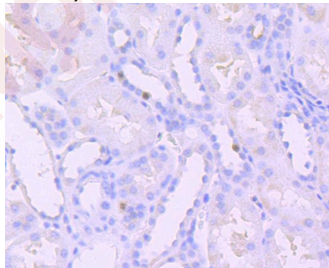
### Product Details

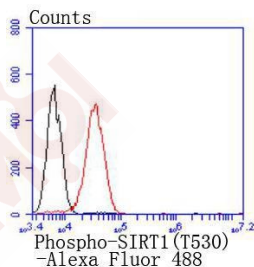
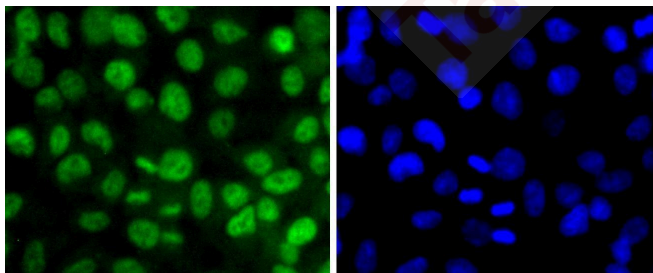
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 82 kDa.
Clone:	4S678
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Phospho-SIRT1 (T530) antibody. Counter stained with hematoxylin.
2. ICC staining Phospho-SIRT1 (T530) in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
3. ICC staining Phospho-SIRT1 (T530) in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining Phospho-SIRT1 (T530) in 293 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. Flow cytometric analysis of 293 cells with Phospho-SIRT1 (T530) antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.





Application: FCM, ICC/IF, IHC, WB

Recommended WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:100-500; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: A synthesized phosphopeptide: human SIRT1 around the phosphorylation site of Thr530

Antigen Species: human

Uniprot ID: Q96EB6

Synonyms: p-SIRT1 (T530); SIRT1 (p-Thr530); SIR2L1; SIRT1 (p-T530); sirtuin 1; p-SIRT1 (Thr530)

### Research Background

The silent information regulator (SIR2) family of genes are highly-conserved from prokaryotes to eukaryotes and are involved in diverse processes, including transcriptional regulation, cell cycle progression, DNA-damage repair and aging. In *S. cerevisiae*, Sir2p deacetylates histones in an NAD-dependent manner, which regulates silencing at the telomeric, rDNA and silent mating-type loci. Sir2p is the founding member of a large family, designated sirtuins, which contain a conserved catalytic domain. The human homologs, which include SIRT1-7, are divided into four main branches: SIRT1-3 are class I, SIRT4 is class II, SIRT5 is class III and SIRT6-7 are class IV. SIRT1 has the closest homology to the yeast Sir2p and is widely expressed in fetal and adult tissues. SIRT1 is highly expressed in heart, brain and skeletal muscle, with low expression in lung and placenta. SIRT1 regulates the p53-dependent DNA damage response pathway by binding to and deacetylating p53, specifically at Lys 382.

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Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481