

# Anti-SIRT1 Antibody [JE11-04]

ET7110-49



|                            |   |
|----------------------------|---|
| <b>Product Type:</b>       | Recombinant Rabbit monoclonal IgG, primary antibodies |
| <b>Species reactivity:</b> | Human   |
| <b>Applications:</b>       | WB, IF-Cell   |
| <b>Molecular Wt:</b>       | Predicted band size: 82 kDa                           |
| <b>Clone number:</b>       | JE11-04   |

**Description:** 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.

**Immunogen:** Synthetic peptide within C terminal human SIRT1.

**Positive control:** Jurkat cell lysate, HepG2 cell lysate, Hela cell lysate, Hela.

**Subcellular location:** Cytoplasm, Mitochondrion, Nucleus.

**Database links:** SwissProt: Q96EB6 Human

**Recommended Dilutions:**

|                |                |
|----------------|----------------|
| <b>WB</b>      | 1:1000-1:2,000 |
| <b>IF-Cell</b> | 1:50-1:100     |

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

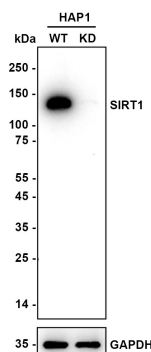
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## Images

**Fig1:** Western blot analysis of SIRT1 on different lysates with Rabbit anti-SIRT1 antibody (ET7110-49) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate

Lane 2: HAP1-SIRT1 KD cell lysate



Lysates/proteins at 10 µg/Lane.

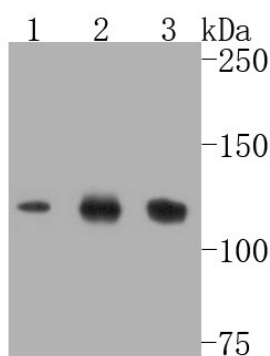
Predicted band size: 80 kDa

Observed band size: 120 kDa

Exposure time: 78 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET7110-49) at 1/2,000 dilution was used in K1803 at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



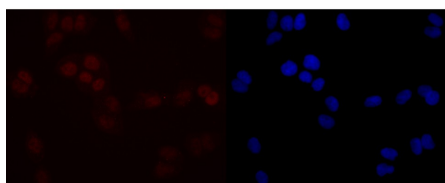
**Fig2:** Western blot analysis of SIRT1 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET7110-49, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

**Positive control:**

Lane 1: Jurkat cell lysate

Lane 2: HepG2 cell lysate

Lane 3: HeLa cell lysate



**Fig3:** ICC staining of SIRT1 in HeLa cells (red). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7110-49, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®594 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Luo J. et. al. SIRT1 is required for the neuroprotection of resveratrol on retinal ganglion cells after retinal ischemia-reperfusion injury in mice. *Graefes Arch Clin Exp Ophthalmol.* 2020 Jan 3.
2. Imperatore F. et. al. SIRT1 regulates macrophage self-renewal. *EMBO J.* 2017 Aug 15;36(16):2353-2372.

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