

Anti-Phospho-SIRT1 (S47) Antibody [SN06-40]

ET1611-31



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 82 kDa
Clone number:	SN06-40

Description: Sirtuin 1 is a member of the sirtuin family of proteins, homologs of the Sir2 gene in *S. cerevisiae*. 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. Sirtuin 1 is downregulated in cells that have high insulin resistance and inducing its expression increases insulin sensitivity, suggesting the molecule is associated with improving insulin sensitivity. Furthermore, SIRT1 was shown to de-acetylate and affect the activity of both members of the PGC1-alpha/ERR-alpha complex, which are essential metabolic regulatory transcription factors.

Immunogen: Synthetic phospho-peptide corresponding to residues surrounding Ser47 of Human SIRT1 aa 30-79 / 747.

Positive control: 293T whole cell lysate, 293T treated with 100nM Calyculin A for 15 minutes whole cell lysate, A549, HepG2, SW480, human testis tissue, human colon tissue.

Subcellular location: Nucleus, Cytoplasm.

Database links: SwissProt: Q96EB6 Human

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:100-1:500
IHC-P	1:50-1:200

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 or -80°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

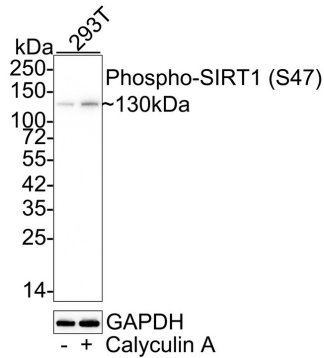
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Images

Fig1: Western blot analysis of Phospho-SIRT1 (S47) on different lysates with Rabbit anti-Phospho-SIRT1 (S47) antibody (ET1611-31) at 1/2,000 dilution.

Lane 1: 293T whole cell lysate

Lane 2: 293T treated with 100nM Calyculin A for 15 minutes whole cell lysate



Lysates/proteins at 20 µg/Lane.

Predicted band size: 82 kDa

Observed band size: 130 kDa

Exposure time: 3 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1611-31) at 1/2,000 dilution was used in 5% NFDM/TBST 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.

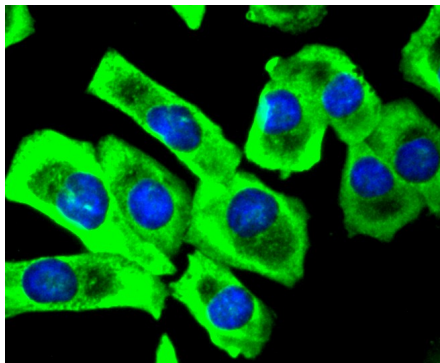


Fig2: ICC staining Phospho-SIRT1 (S47) in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

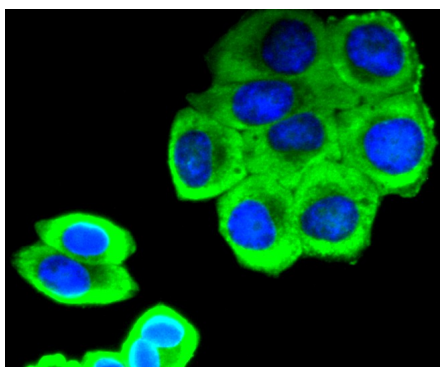


Fig3: ICC staining Phospho-SIRT1 (S47) in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

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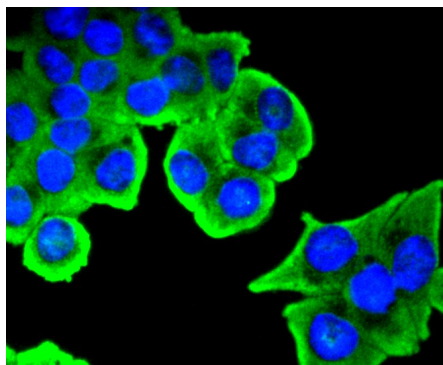


Fig4: ICC staining Phospho-SIRT1 (S47) in SW480 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

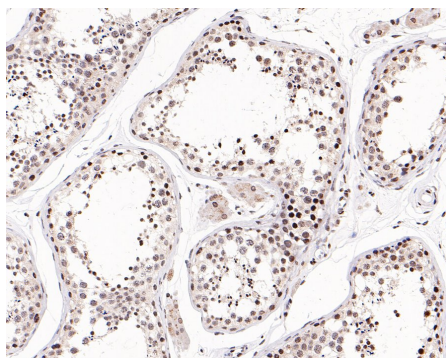


Fig5: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-Phospho-SIRT1 (S47) antibody (ET1611-31) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ET1611-31) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

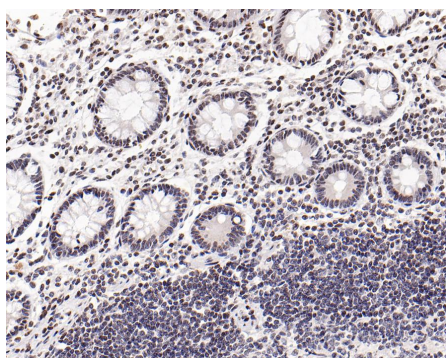


Fig6: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-Phospho-SIRT1 (S47) antibody (ET1611-31) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ET1611-31) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Malovini A et al. Association Study on Long-Living Individuals from Southern Italy Identifies rs10491334 in the CAMKIV Gene That Regulates Survival Proteins. *Rejuvenation Res* 14:283-91 (2011).
2. Mohan M et al. Dysregulated miR-34a-SIRT1-acetyl p65 axis is a potential mediator of immune activation in the colon during chronic simian immunodeficiency virus infection of rhesus macaques. *J Immunol* 194:291-306 (2015).

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