

Rabbit Anti-SIRT3 antibody

SL55199R

Product Name	[KO validated anti] SIRT3
Chinese Name	Mitochondrion 乙酰化酶 3 抗体
Alias	hSIRT3; hSIRT 3; hSIRT3; Mitochondrial nicotinamide adenine dinucleotide dependent deacetylase; NAD dependent deacetylase sirtuin 3 mitochondrial; NAD-dependent deacetylase sirtuin-3, mitochondrial; Silent mating type information regulation 2 S.cerevisiae homolog 3; Sir 2 like 3; SIR 2 like protein 3; SIR 3; SIR2 L3; Sir2 like 3; SIR2 like protein 3; SIR2-like protein 3; SIR2L3; SIRT 3; SIRT3_HUMAN; Sirtuin 3; Sirtuin silent mating type information regulation 2 homolog 3 (S. cerevisiae); Sirtuin type 3; Sirtuin3.
Research Area	Tumour Cardiovascular Cell biology Cyclin Mitochondrion
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat
Applications	IHC-P=1:50-200,IHC-F=1:50-200,IF=1:50-200 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	28/43kDa
Cellular localization	cytoplasmic Mitochondrion
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SIRT3: 300-399/399
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	Human,Mouse,Rat1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat3% Proclin300 and 50% Glycerol.
Storage	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 Human,Mouse,Rat1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Attention

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

PubMed

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SIRT3 encodes a member of the sirtuin family of class III histone deacetylases, homologs to the yeast Sir2 protein. The encoded protein is found exclusively in mitochondria, where it can eliminate reactive oxygen species, inhibit apoptosis, and prevent the formation of cancer cells. SIRT3 has far-reaching effects on nuclear gene expression, cancer, cardiovascular disease, neuroprotection, aging, and metabolic control. [provided by RefSeq, May 2019]

Function:

NAD-dependent protein deacetylase. Activates mitochondrial target proteins, including ACSS1, IDH2 and GDH by deacetylating key lysine residues. Contributes to the regulation of the cellular energy metabolism. Important for regulating tissue-specific ATP levels.

Subunit:

Interacts with NDUFA9, ACSS1, IDH2 and GDH.

Subcellular Location:

Product Detail

Mitochondrion matrix.

Tissue Specificity:

Widely expressed.

Post-translational modifications:

Processed by mitochondrial processing peptidase (MPP) to give a 28 kDa product. Such processing is probably essential for its enzymatic activity.

Similarity:

Belongs to the sirtuin family. Contains 1 deacetylase sirtuin-type domain.

SWISS:

Q9NTG7

Gene ID:

23410

Database links:

[Entrez Gene: 23410](#) Human

[Entrez Gene: 64384](#) Mouse

[Omim: 604481](#) Human

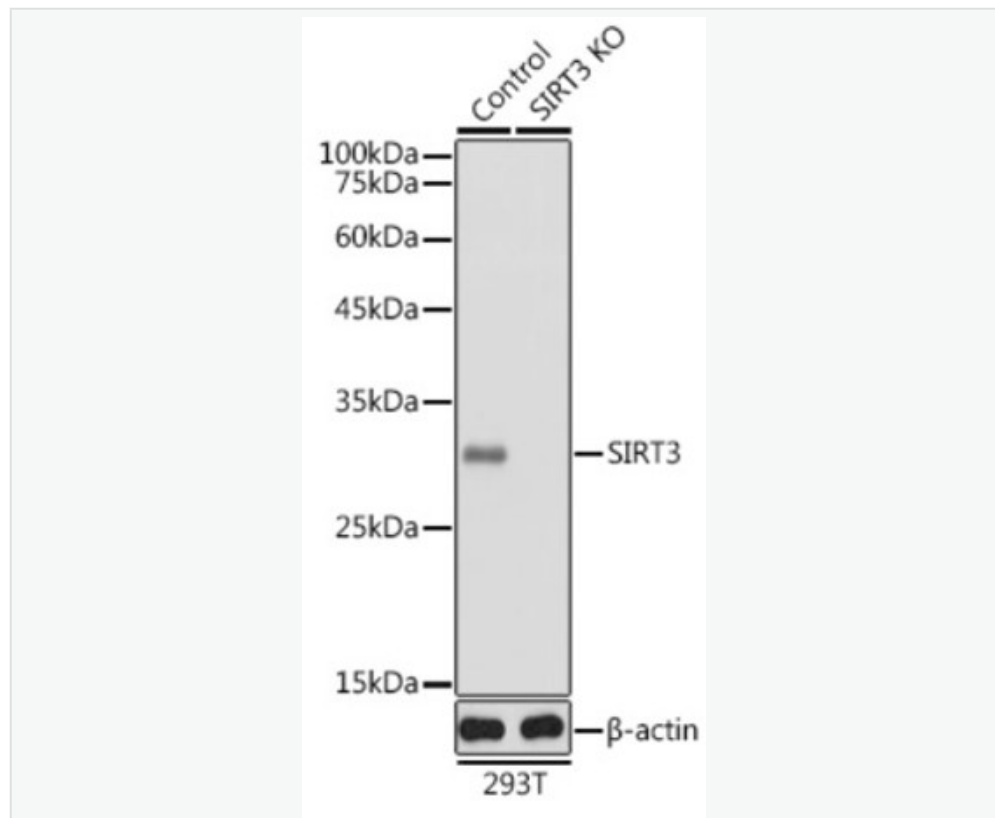
[SwissProt: Q9NTG7](#) Human

[SwissProt: Q8R104](#) Mouse

[Unigene: 716456](#) Human

[Unigene: 244216](#) Mouse

Product Picture



Sample:

Lane 1: 293T (Human) Cell Lysate at 25 ug

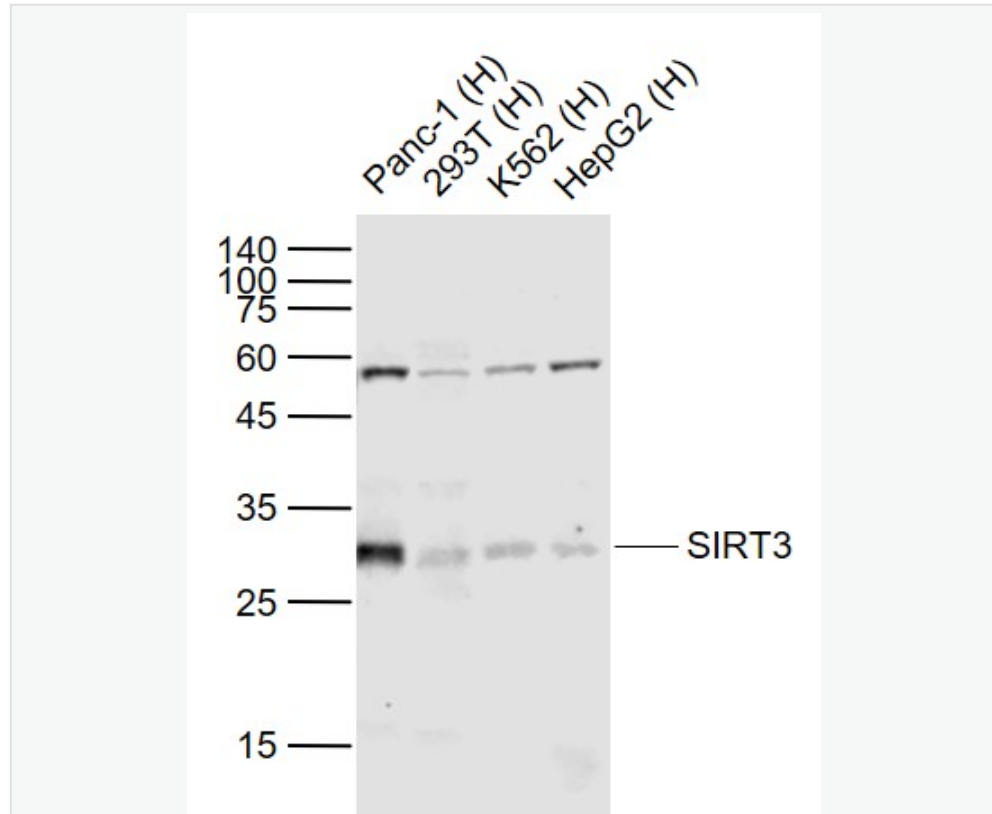
Lane 2: SIRT3 knockout (KO) 293T (Human) Cell Lysate at 25 ug

Primary: Anti-SIRT3 (SL55199R) at 1/1000 dilution

Secondary: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution

Predicted band size: 28 kD

Observed band size: 30 kD



Sample:

Lane 1: Panc-1 (Human) Cell Lysate at 30 ug

Lane 2: 293T (Human) Cell Lysate at 30 ug

Lane 3: K562 (Human) Cell Lysate at 30 ug

Lane 4: HepG2 (Human) Cell Lysate at 30 ug

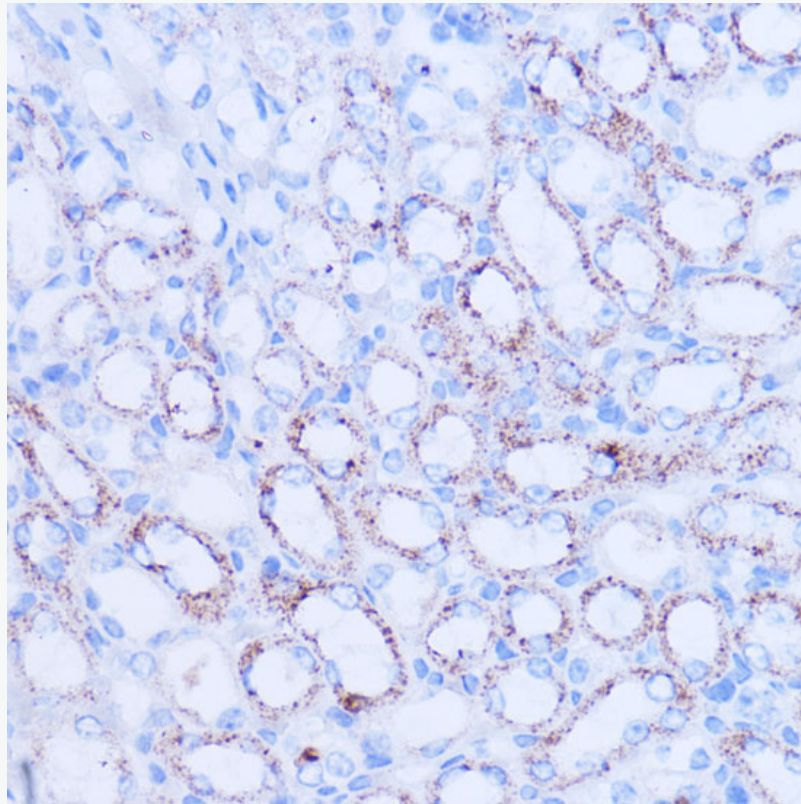
Primary:

Anti-SIRT3 (SL55199R) at 1/1000 dilution

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

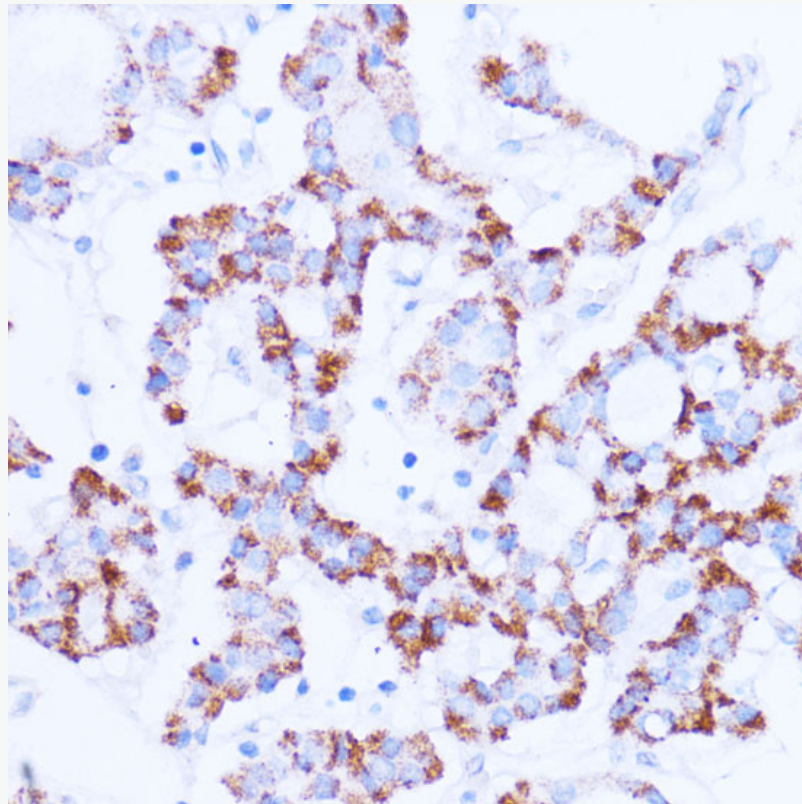
Predicted band size: 28 kD

Observed band size: 28 kD

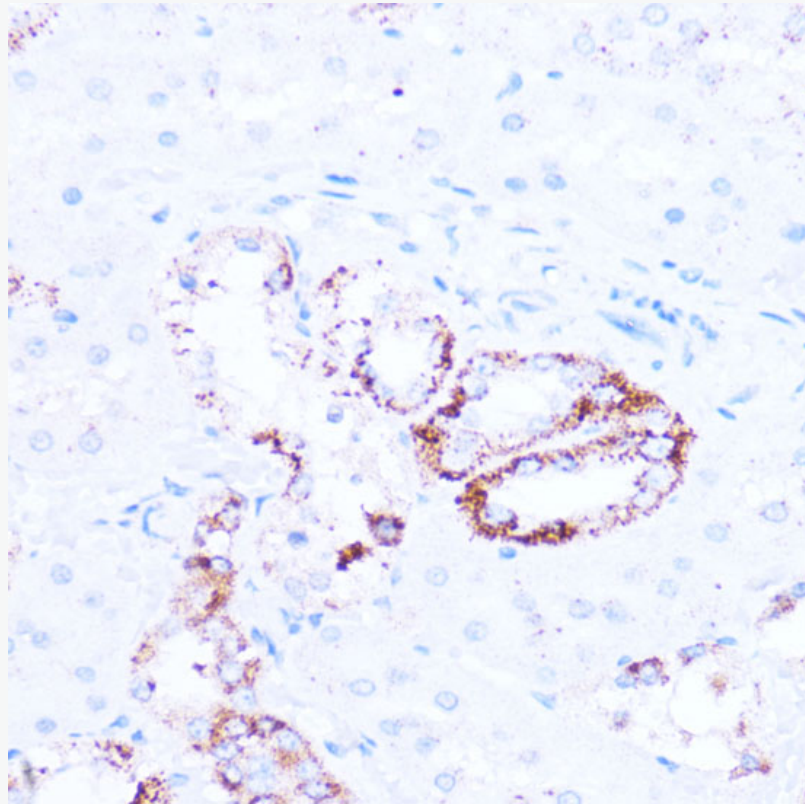


Paraformaldehyde-fixed, paraffin embedded (mouse kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIRT3) Polyclonal Antibody, Unconjugated (SL55199R)

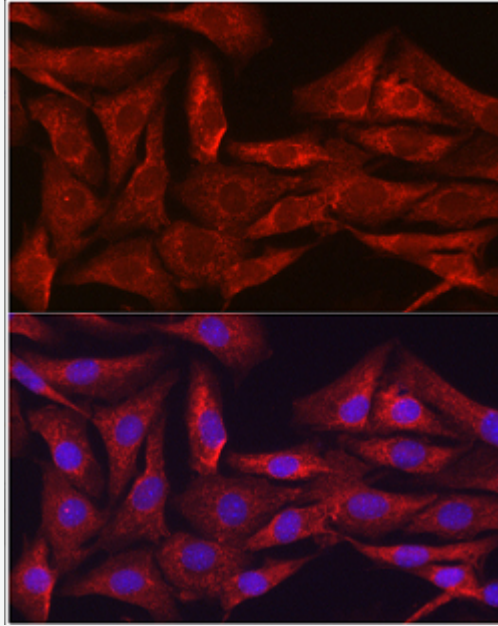
at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human thyroid cancer);
Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min;
Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes;
Blocking buffer (normal goat serum) at 37°C for 30min; Antibody
incubation with (SIRT3) Polyclonal Antibody, Unconjugated (SL55199R)
at 1:100 overnight at 4°C, followed by operating according to SP
Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIRT3) Polyclonal Antibody, Unconjugated (SL55199R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



NIH/3T3 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)SIRT3 polyclonal Antibody, Unconjugated (SL55199R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.