

Anti-SIRT2 antibody ab19388

[3 References](#) [3 Images](#)

Overview

Product name	Anti-SIRT2 antibody
Description	Rabbit polyclonal to SIRT2
Host species	Rabbit
Specificity	SIRT2 antibody (ab19388) detects SIRT2 and shows no cross-reactivity to other SIRT isoforms.
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human SIRT2 aa 377-389. Sequence: DEARTTEREKPQ

 [Run BLAST with](#)

 [Run BLAST with](#)

Positive control	ICC/IF: SAOS2 transfected cell lysates WB: HeLa and MCF7 whole cell lysate; Mouse brain and liver tissue lysates IHC-P: Human heart tissue
-------------------------	--

General notes

The SIRT2 protein (also known as Sirtuin for Silent Mating Type Information 2-Homolog) is a NAD-dependent deacetylase (NDAC) that has been shown to control gene silencing, cell cycle, and DNA damage repair. It is believed that SIRT2 may act as a tumor suppressor in human gliomas and may also serve as a novel molecular marker for these cells. SIRT2 has also been shown to act as a redox sensor to help regulate muscle gene expression in response to food intake and exercise. SIRT2 acts in the phosphorylation cascade involving mitosis where SIRT2 is phosphorylated in late G2 phase, during M phase, and into cytokinesis.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
-------------	--------

Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.05% Sodium azide
Purity	Whole antiserum
Primary antibody notes	The SIRT2 protein (also known as Sirtuin for Silent Mating Type Information 2-Homolog) is a NAD-dependent deacetylase (NDAC) that has been shown to control gene silencing, cell cycle, and DNA damage repair. It is believed that SIRT2 may act as a tumor suppressor in human gliomas and may also serve as a novel molecular marker for these cells. SIRT2 has also been shown to act as a redox sensor to help regulate muscle gene expression in response to food intake and exercise. SIRT2 acts in the phosphorylation cascade involving mitosis where SIRT2 is phosphorylated in late G2 phase, during M phase, and into cytokinesis.
Clonality	Polyclonal
Isotype	IgG

Applications

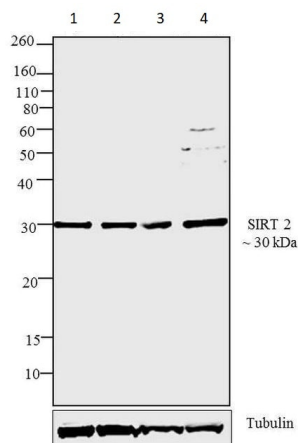
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab19388 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/100.
WB		1/250. Detects a band of approximately 48 kDa (predicted molecular weight: 43 kDa).
ICC/IF		1/400.

Target

Function	NAD-dependent protein deacetylase, which deacetylates the 'Lys-40' of alpha-tubulin. Involved in the control of mitotic exit in the cell cycle, probably via its role in the regulation of cytoskeleton.
Tissue specificity	Widely expressed. Highly expressed in heart, brain and skeletal muscle, while it is weakly expressed in placenta and lung. Down-regulated in many gliomas suggesting that it may act as a tumor suppressor gene in human gliomas possibly through the regulation of microtubule network.
Sequence similarities	Belongs to the sirtuin family. Contains 1 deacetylase sirtuin-type domain.
Developmental stage	Peaks during mitosis. After mitosis, it is probably degraded by the 26S proteasome.
Post-translational modifications	Phosphorylated at the G2/M transition of the cell cycle.
Cellular localization	Cytoplasm > cytoskeleton. Colocalizes with microtubules.

Images



Western blot - Anti-SIRT2 antibody (ab19388)

All lanes : Anti-SIRT2 antibody (ab19388) at 1/250 dilution

Lane 1 : Mouse liver tissue lysate

Lane 2 : Mouse brain tissue lysate

Lane 3 : MCF7 whole cell lysate

Lane 4 : HeLa whole cell lysate

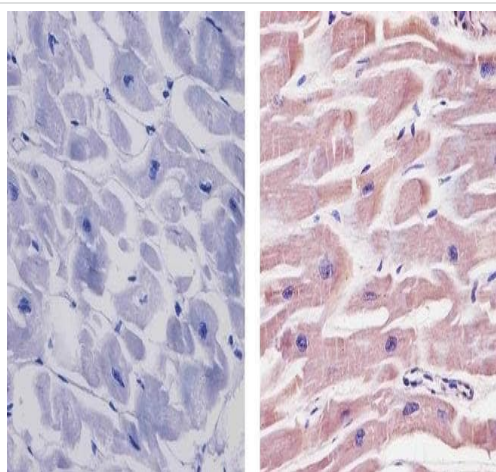
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, HRP conjugate at 1/5000 dilution

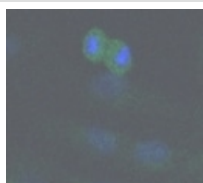
Predicted band size: 43 kDa

Observed band size: 30 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SIRT2 antibody (ab19388)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of SIRT2 showing staining in the cytoplasm of paraffin-embedded human heart tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS, and then probed with ab19388 diluted in 3% BSA-PBS at a dilution of 1/100 for 1 hour at 37°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunocytochemistry/ Immunofluorescence - Anti-SIRT2 antibody (ab19388)

Immunofluorescence staining of SIRT2 in transfected SAOS2 cells using ab19388.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors