

Product datasheet

Anti-SIRT3 antibody ab40963

2 Images

Overview

Product name	Anti-SIRT3 antibody
Description	Rabbit polyclonal to SIRT3
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 350 to the C-terminus of Human SIRT3. Read Abcam's proprietary immunogen policy (Peptide available as ab45065 .)
Positive control	ab40963 gave a positive signal in Human Liver Tissue Lysate.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab40963** in the following tested applications.

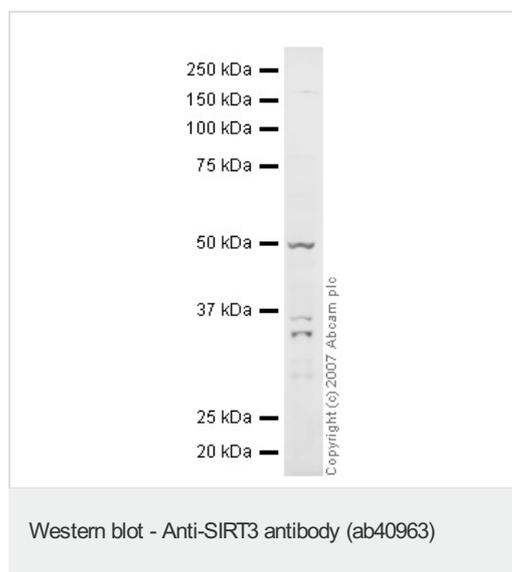
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 10 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 50 kDa (predicted molecular weight: 44 kDa).

Target

Function	NAD-dependent protein deacetylase. Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues. Known targets include ACSS1, IDH, GDH, SOD2, PDHA1, LCAD, SDHA and the ATP synthase subunit ATP5O. Contributes to the regulation of the cellular energy metabolism. Important for regulating tissue-specific ATP levels.
Tissue specificity	Widely expressed.
Sequence similarities	Belongs to the sirtuin family. Class I subfamily. Contains 1 deacetylase sirtuin-type domain.
Post-translational modifications	Processed by mitochondrial processing peptidase (MPP) to give a 28 kDa product. Such processing is probably essential for its enzymatic activity.
Cellular localization	Mitochondrion matrix.

Images



Anti-SIRT3 antibody (ab40963) at 1 µg/ml + Human liver tissue lysate - total protein (ab29889) at 10 µg

Secondary

IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

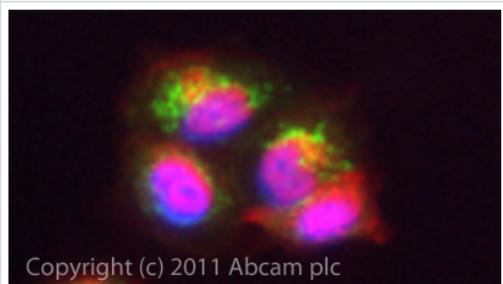
Predicted band size: 44 kDa

Observed band size: 50 kDa

[why is the actual band size different from the predicted?](#)

Additional bands at: 32 kDa, 36 kDa. We are unsure as to the identity of these extra bands.

The band observed at 32 kDa is thought to represent the 28 kDa processed form of SIRT3.



Immunocytochemistry/ Immunofluorescence - Anti-SIRT3 antibody (ab40963)

ICC/IF image of ab40963 stained MCF7 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab40963, 10µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96899](#) Dylight 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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