

Anti-SIRT4 antibody ab124521

[10 References](#) [1 Image](#)

Overview

Product name	Anti-SIRT4 antibody
Description	Rabbit polyclonal to SIRT4
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Rat
Immunogen	Synthetic peptide surrounding amino acid 72 of Rat SIRT4.
Positive control	Rat kidney tissue lysate
General notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called 3224 SIRT4 Antibody. 3224-100 is the same size as the 100 µg size of ab124521.</p> <p>The antibody solution should be gently mixed before use.</p> <p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Thimerosal (merthiolate) Constituents: 69% PBS, 0.5% BSA, 30% Glycerol (glycerin, glycerine), 0.15% EDTA
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab124521 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
WB		Use a concentration of 1 - 4 µg/ml. Predicted molecular weight: 32 kDa.

Target

Function

Acts as NAD-dependent protein lipoamidase, ADP-ribosyl transferase and deacetylase. Catalyzes more efficiently removal of lipoyl- and biotinyl- than acetyl-lysine modifications. Inhibits the pyruvate dehydrogenase complex (PDH) activity via the enzymatic hydrolysis of the lipoamide cofactor from the E2 component, DLAT, in a phosphorylation-independent manner (PubMed:25525879). Catalyzes the transfer of ADP-ribosyl groups onto target proteins, including mitochondrial GLUD1, inhibiting GLUD1 enzyme activity. Acts as a negative regulator of mitochondrial glutamine metabolism by mediating mono ADP-ribosylation of GLUD1: expressed in response to DNA damage and negatively regulates anaplerosis by inhibiting GLUD1, leading to block metabolism of glutamine into tricarboxylic acid cycle and promoting cell cycle arrest (PubMed:16959573, PubMed:17715127). In response to mTORC1 signal, SIRT4 expression is repressed, promoting anaplerosis and cell proliferation. Acts as a tumor suppressor (PubMed:23562301, PubMed:23663782). Also acts as a NAD-dependent protein deacetylase: mediates deacetylation of 'Lys-471' of MLYCD, inhibiting its activity, thereby acting as a regulator of lipid homeostasis (By similarity). Controls fatty acid oxidation by inhibiting PPARA transcriptional activation. Impairs SIRT1:PPARA interaction probably through the regulation of NAD(+) levels (PubMed:24043310). Down-regulates insulin secretion.

Tissue specificity

Detected in vascular smooth muscle and striated muscle. Detected in insulin-producing beta-cells in pancreas islets of Langerhans (at protein level). Widely expressed. Weakly expressed in leukocytes and fetal thymus.

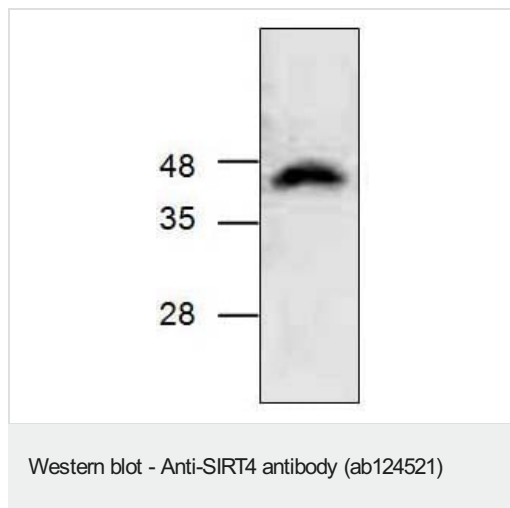
Sequence similarities

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

Cellular localization

Mitochondrion matrix.

Images



Anti-SIRT4 antibody (ab124521) at 4 µg/ml + Rat kidney tissue lysate

Predicted band size: 32 kDa

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

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