

Anti-SIRT4

Rabbit Polyclonal Antibody

Catalog # S38-463R

Lot # O2121-35

Cited Applications

WB, ELISA

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the SIRT4 protein

Cross Reactivity

Human, Mouse and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

SIRT4 antibody was raised against a 17 amino acid synthetic peptide near the amino terminus of human SIRT4

Formulation

PBS + 0.02% sodium azide

Stability

1yr at -20°C from date of shipment

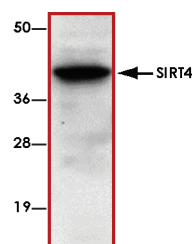
Scientific Background

SIRT4 is a member of the sirtuin family of proteins which are homologs to the yeast Sir2 protein. Sirtuin family contain a sirtuin core domain and are grouped into four classes with SIRT4 being a member of class IV. SIRT4 lacks deacetylase activity but has ADP-ribosyltransferase activity (1). Immunoprecipitation analysis shows that SIRT4 interacts with the mitochondrial enzyme glutamate dehydrogenase (GDH), and functional analysis show that SIRT4 ADP-ribosylates and inhibits GDH (2). Downregulation of SIRT4 by RNA interference activates GDH, thereby upregulating insulin secretion in response to glucose and amino acids.

References

1. Frye, R. A. Characterization of five human cDNAs with homology to the yeast SIR2 gene: Sir2-like proteins (sirtuins) metabolize NAD and may have protein ADP-ribosyltransferase activity. *Biochem. Biophys. Res. Commun.* 260: 273-279, 1999.
2. Haigis, M. C. et al: SIRT4 inhibits glutamate dehydrogenase and opposes the effects of calorie restriction in pancreatic beta cells. *Cell* 126: 941-954, 2006.

Sample Data



Western blot analysis of SIRT4 in human liver tissue lysate with SIRT4 antibody at 1 µg/ml.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
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