

Polyclonal Antibody to SIRT3 (Sirtuin 3)

Alternate names:	SIRT-3, Sir2L3, Sir3L, Sirtuin 3
Catalog No.:	SP7169P
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Host:	Rabbit
Immunogen:	A synthetic peptide corresponding to a portion of human SIRT3 was used as immunogen.
Applications:	Western blot (1-3 µg/ml; rec. positive control: human testis). Other applications not tested. Optimal dilutions of this antibody are dependent on conditions and should be determined by the user. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes human SIRT3 and will cross react with mouse and rat. SIRT3 is a human member of a family of proteins called Sirtuins (Sir2-like proteins) and are present in prokaryotes and eukaryotes. All Sir2-like proteins have a sirtuin core domain, which contains a series of sequence motifs conserved in organisms ranging from bacteria to humans. Bacterial, yeast and mammalian sirtuins are able to metabolize NAD and possibly act as mono-ADP-ribosyltransferases. The enzymatic function of sirtuins is not yet completely understood but recent reports of histone-activated Sir2-mediated NAD metabolism and NAD-activated Sir2-mediated histone deacetylation suggest a possible coupled reciprocal activation mechanism involving interactions of Sir2 with NAD and the N epsilon-acetyl-lysine groups of acetylated histones.
Storage:	Store the antibody at 4°C for one month or at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	<ol style="list-style-type: none"> 1. Imai S, Armstrong CM, Kaerberlein M, Guarente L. Transcriptional silencing and longevity protein Sir2 is an NAD-dependent histone deacetylase. <i>Nature</i>. 2000 Feb 17;403(6771):795-800. PubMed PMID: 10693811. 2. Frye RA. 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. <i>Biochem Biophys Res Commun</i>. 1999 Jun 24;260(1):273-9. PubMed PMID: 10381378. 3. Landry J, Sutton A, Tafrov ST, Heller RC, Stebbins J, Pillus L, et al. The silencing protein SIR2 and its homologs are NAD-dependent protein deacetylases. <i>Proc Natl Acad Sci U S A</i>. 2000 May 23;97(11):5807-11. PubMed PMID: 10811920. 4. Frye RA. <i>Biochem Biophys Res Commun</i>