

# Immunotag™ SIRT4 Antibody

Antibody Specification	
Catalog No.	ITA8242
Product Description	Immunotag™ SIRT4 Antibody
Size	100 µg, 200 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	SIRT4
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	WB 1:1000-3000
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	A synthesized peptide derived from human SIRT4
Specificity	SIRT4 Antibody detects endogenous levels of total SIRT4
Purification	The antiserum was purified by peptide affinity chromatography.
Form	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt
Gene Name	SIRT4
Accession No.	Q9Y6E7

## Antibody Specification

Alternate Names	MGC130046; MGC130047; MGC57437; NAD dependent deacetylase sirtuin 4; NAD dependent protein deacetylase sirtuin 4; NAD-dependent ADP-ribosyltransferase sirtuin-4; NAD-dependent protein deacetylase sirtuin-4; NAD-dependent protein lipoamidase sirtuin-4, mitochondrial; Regulatory protein SIR2 homolog 4; Silent mating type information regulation 2 homolog; Sir 2 like 4; SIR 2 like protein 4; Sir2 like 4; SIR2 like protein 4; SIR2-like protein 4; SIR2L 4; SIR2L4; SIR4_HUMAN; SIRT 4; Sirt4; Sirtuin (silent mating type information regulation 2 homolog) 4; Sirtuin (silent mating type information regulation 2 homolog) 4 (S. cerevisiae); Sirtuin 4; Sirtuin type 4; Sirtuin-4; Sirtuin4;
Description	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). Does not seem to deacetylate PC (PubMed:23438705). Controls fatty acid oxidation by inhibiting PPARA transcriptional activation. Impairs SIRT1:PPARA interaction probably through the regulation of NAD <sup>+</sup> levels (PubMed:24043310). Down-regulates insulin secretion.
Cell Pathway/ Category	Primary Polyclonal Antibody
Protein MW	35 kDa
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.