

Mouse SIRT3 protein, His tag

Cat. No. GTX00312-pro

Applications Functional Assay**Species** Mouse**Package**

10 µg

Applications

Application Note

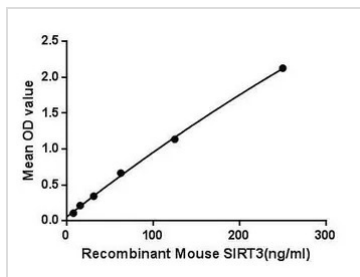
Sirtuin 3 (SIRT3) also known as NAD-dependent deacetylase sirtuin-3 is a member of the mammalian sirtuin family of proteins. SIRT3 is a soluble protein located in the mitochondrial matrix, and contains a mitochondrial processing peptide at the N-terminus. It is a key regulator of succinate dehydrogenase (SDH), which catalyzes the oxidation of succinate to fumarate. Increased succinate concentrations and the specific G protein-coupled receptor 91 (GPR91) are involved in the activation of hepatic stellate cells (HSCs). SIRT3 agonists could help treat metabolic disorders such as obesity, metabolic syndrome and type 2 diabetes. Besides, Dihydrolipoyl Transacetylase (DLAT) has been identified as an interactor of SIRT3, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse SIRT3 and recombinant mouse DLAT. Briefly, SIRT3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to DLAT-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-SIRT3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of SIRT3 and DLAT was in a dose dependent manner.

Observed MW (kDa) 16/29 kDa.

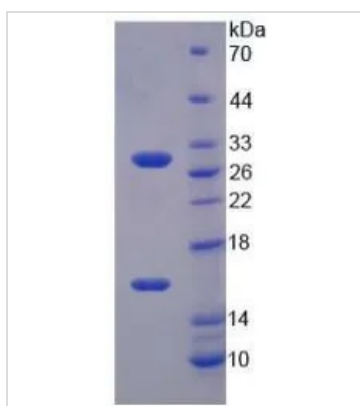
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Gly5~Arg257 (NP_001120823.1)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

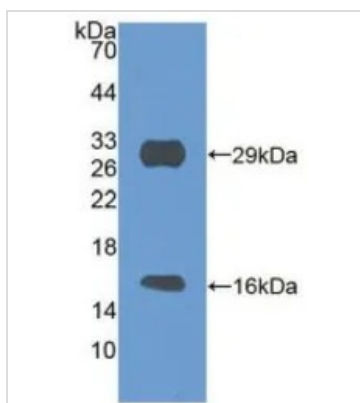
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DATA IMAGES

GTX00312-pro Functional Assay Image

Functional ELISA analysis of GTX00312-pro Mouse SIRT3 protein which can bind immobilized DLAT protein.


GTX00312-pro Image

SDS-PAGE analysis of GTX00312-pro Mouse SIRT3 protein.


GTX00312-pro Image

WB analysis of GTX00312-pro Mouse SIRT3 protein.



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