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Product Datasheet

Mouse SIRT3 protein, His tag, Unconjugated GTX00312-PRO

Article Name	Mouse SIRT3 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00312-PRO
Supplier Catalog Number	GTX00312-pro
Alternative Catalog Number	GTX00312-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Mouse
Conjugation	Unconjugated
NCBI	64384
UniProt	Q8R104
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, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Gly5~Arg257 (NP_001120823.1)

Application Notes

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 37C. Wells were washed with PBST and incubated for 1h with anti-SITR3 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 37C. 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.