Data Sheet (Cat.No.TMPH-02800)

TargetMol

SIRT5 Protein, Mouse, Recombinant (His & Myc)

General Information

Synonyms:	Sir2l5;Sirt5;NAD-dependent protein deacylase sirtuin-5, mitochondrial;SIR2-like protein 5; Regulatory protein SIR2 homolog 5;mitochondrial
Protein Construction:	37-310 aa
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	Q8K2C6
Molecular Weight:	34 kDa (predicted)
AA Sequence:	SSNMADFRKCFANAKHIAIISGAGVSAESGVPTFRGAGGYWRKWQAQDLATPQAFARNPSQVWEFYHYRR EVMRSKEPNPGHLAIAQCEARLRDQGRRVVVITQNIDELHRKAGTKNLLEIHGTLFKTRCTSCGTVAENYRSPI CPALAGKGAPEPETQDARIPVDKLPRCEEAGCGGLLRPHVVWFGENLDPAILEEVDRELALCDLCLVVGTSSV VYPAAMFAPQVASRGVPVAEFNMETTPATDRFRFHFPGPCGKTLPEALAPHETERTS

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NAD-dependent lysine demalonylase, desuccinylase and deglutarylase that specifically removes malonyl, succinyl and glutaryl groups on target proteins. Activates CPS1 and contributes to the regulation of blood ammonia levels during prolonged fasting: acts by mediating desuccinylation and deglutarylation of CPS1, thereby increasing CPS1 activity in response to elevated NAD levels during fasting. Activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species. Activates SHMT2 by mediating its desuccinylation. Modulates ketogenesis through the desuccinylation and activation of HMGCS2. Has weak NAD-dependent protein deacetylase activity; however this activity may not be physiologically relevant in vivo. Can deacetylate cytochrome c (CYCS) and a number of other proteins in vitro such as Uox.

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