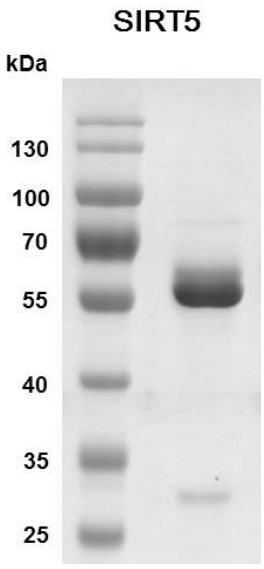
Recombinant SIRT5 protein

Catalog No: 31531, 31931
Lot No: 15016001
Expressed In: *E. coli*

Quantity: 100 µg
Concentration: 3.5 µg/µl
Source: Human

Buffer Contents: Full length recombinant SIRT5 protein is supplied at a concentration of 3.5 µg/µl in 25 mM Tris pH 8.0, 150 mM NaCl, 5% glycerol.

Background: SIRT5 (Sirtuin 5) is a member of the SIR2 / Sirtuin family of NAD+-dependant deacetylase enzymes. Sirtuin family enzymes can be found in the cytoplasm, mitochondria or nucleus of a cell and are ubiquitously expressed. SIRT5 has multiple enzymatic functions, such as NAD+-dependent lysine demalonylase, desuccinylase and deglutarylase that specifically removes malonyl, succinyl and glutaryl groups on target proteins. SIRT5 catalyzes more efficiently removal of malonyl- and succinyl- and glutaryl- than acetyl-lysine modifications. SIRT5 activates CPS1 and contributes
to the regulation of blood ammonia levels during prolonged fasting by mediating desuccinylation and deglutarylation of CPS1. SIRT5 also activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species. It can modulate ketogenesis through the desuccinylation and activation of HMGCS2. SIRT5 can deacetylate cytochrome c (CYCS) and a number of other proteins *in vitro* such as UOX.



Full length recombinant SIRT5

12.5% SDS-PAGE Coomassie staining

MW: 65.8 kDa

Purity: > 70%

Protein Details: Recombinant human SIRT5 was expressed in *E.coli* as the full length protein (accession number NM_012241.4) with an N-terminal GST tag. The molecular weight of the protein is 65.8 kDa. The purity of the protein is > 70% by SDS-PAGE.

Application Notes: This protein is useful for protein deacetylase, demalonylase, desuccinylase and deglutarylase assays and the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.