

Recombinant Human SIRT3 Protein(Sumo Tag)

Catalog Number: PDEH101116

Note: Centrifuge before opening to ensure complete recovery of vial contents.

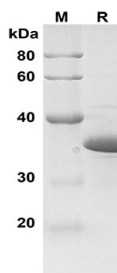
Description

Species	Human
Source	E.coli-derived Human SIRT3 protein Gly202-Lys399, with an N-terminal Sumo
Calculated MW	34.5 kDa
Observed MW	36 kDa
Accession	Q9NTG7-1
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human SIRT3 proteins, 2µg/lane of Recombinant Human SIRT3 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 36 kDa

Background

SIRT3 is a nicotinamide adenine dinucleotide (NAD(+))-dependent mitochondrial protein deacetylase purported to influence metabolism through post-translational modification of metabolic enzymes. Sirtuin 3 (SIRT3) mediates cellular resistance toward various forms of stress. Sirtuin 3 (SIRT3), the mitochondrial NAD(+)-dependent deacetylase, may regulate mitochondrial function and biosynthetic pathways such as glucose and fatty acid metabolism and the tricarboxylic acid (TCA) cycle, oxidative stress, and apoptosis by reversible protein lysine deacetylation. SIRT3 regulates glucose and lipid metabolism and maintains myocardial ATP levels, which protects the heart from metabolic disturbances. SIRT3 can also protect cardiomyocytes from oxidative stress-mediated cell damage and block the development of cardiac hypertrophy. Recent reports show that SIRT3 is involved in the protection of several heart diseases.