

Product Information

SIRT6, active, His-tagged, human recombinant, expressed in *Sf9* cells

Catalog Number **SRP5273**

Storage Temperature -70°C

Synonym: SIR2L6

Product Description

SIRT6 is a member of the sirtuin family of proteins, which are homologs to the yeast Sir2 protein. The sirtuin family contains a sirtuin core domain and is grouped into four classes with SIRT6 being a member of class IV. Human SIRT6 protein is a NAD^{+} -dependent histone H3 lysine-9 deacetylase that modulates telomeric chromatin.¹ SIRT6 associates specifically with telomeres, and SIRT6 depletion leads to telomere dysfunction with end-to-end chromosomal fusions and premature cellular senescence. SIRT6 $-/-$ mouse cells show SIRT6 promotes resistance to DNA damage and suppresses genomic instability in association with a role in base excision repair.²

Recombinant human SIRT6 (23-end) was expressed by baculovirus in *Sf9* insect cells using an N-terminal His-tag. The gene accession number is NM_016539. It is supplied in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass: ~39 kDa

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.

SDS-PAGE Gel of Typical Lot:
 $\geq 70\%$ (SDS-PAGE, densitometry)

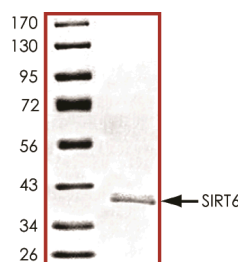
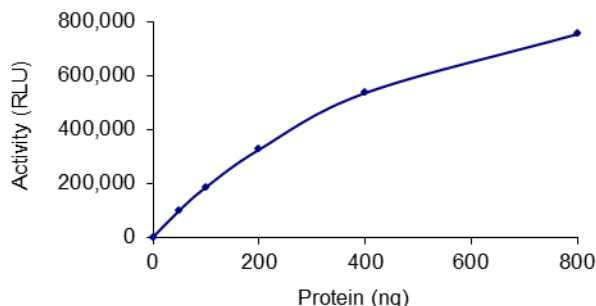


Figure 2.

Specific Activity of Typical Lot:
96–144 RLU/min/ng



Histone deacetylase (HDAC) activity was determined with a luminescent assay procedure.

References

1. Michishita, E. et al., SIRT6 is a histone H3 lysine 9 deacetylase that modulates telomeric chromatin. *Nature*, **452**, 492-496 (2008).
2. Mostoslavsky, R. et al., Genomic instability and aging-like phenotype in the absence of mammalian SIRT6. *Cell*, **124**, 315-329 (2006).

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