

Product Information

SIRT7, active, His-tagged, human recombinant, expressed in *Sf9* cells

Catalog Number **SRP5274**
Storage Temperature -70°C

Synonyms: SIR2L7, MGC126840, MGC126842

Product Description

SIRT7 is a member of the class IV of sirtuin family of proteins, which are homologs to the yeast Sir2 protein and play a role in cell differentiation, proliferation, apoptosis, metabolism, and senescence. SIRT7 associates with active rRNA genes and histones. Overexpression of SIRT7 increases pol I-mediated transcription; whereas, knockdown of SIRT7 or inhibition of its catalytic activity results in decreased association of pol I with rDNA and reduced pol I transcription.¹ Depletion of SIRT7 stops cell proliferation and triggers apoptosis. SIRT7 deacetylates p53 and increases cellular resistance to cytotoxic and oxidative stress.²

Full-length recombinant human SIRT7 was expressed by baculovirus in *Sf9* insect cells using an N-terminal His-tag. The gene accession number is NM_016538. 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: ~46 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)

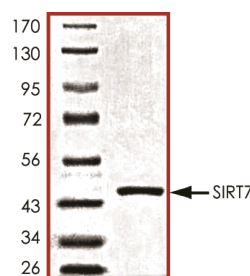
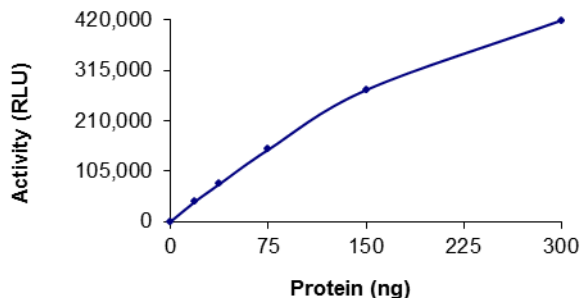


Figure 2.
Specific Activity of Typical Lot:
112–139 RLU/min/ng



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

References

1. Ford, E. et al., Mammalian Sir2 homolog SIRT7 is an activator of RNA polymerase I transcription. *Genes Dev.*, **20**, 1075-1080 (2006).
2. Vakhrusheva, O. et al., Sirt7 increases stress resistance of cardiomyocytes and prevents apoptosis and inflammatory cardiomyopathy in mice. *Circ. Res.*, **102**, 703-710 (2008).

RC,MAM 12/12-1