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Product Information

SIRT5, active, His-tagged, human recombinant, expressed in *Sf*9 cells

Catalog Number **SRP5272**
Storage Temperature –70 °C

Synonym: SIR2L5

Product Description

SIRT5 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 SIRT5 being a member of class III. SIRT5 consists of eight exons and is found in two isoforms, which encode a 310 amino acid and a 299 amino acid protein, respectively. Human SIRT5 is most predominantly expressed in heart muscle cells and in lymphoblasts. Fluorescence *in situ* hybridization analysis localized the human SIRT5 gene to chromosome 6p23. SIRT5 can deacetylate cytochrome c, a protein of the mitochondrial intermembrane space with a central function in oxidative metabolism as well as apoptosis initiation.[1]

Recombinant full length human SIRT5 was expressed by baculovirus in *Sf*9 insect cells using an N-terminal His-tag. The gene accession number is NM_012241. 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:
≥70% (SDS-PAGE, densitometry)

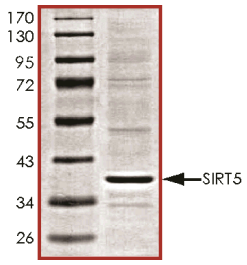
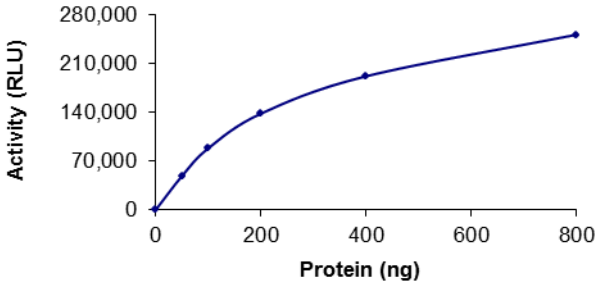


Figure 2.
Specific Activity of Typical Lot:
17.0–26.5 RLU/min/ng



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

References

1. Schlicker, C. et al., Substrates and regulation mechanisms for the human mitochondrial sirtuins Sirt3 and Sirt5. J. Mol. Biol., **382**(3), 790-801 (2008).
2. Mahlknecht, U. et al., Assignment of the NAD-dependent deacetylase sirtuin 5 gene (SIRT5) to human chromosome band 6p23 by *in situ* hybridization. Cytogenet. Genome Res., **112**(3-4), 208-12 (2006).

RC,MAM 12/12-1