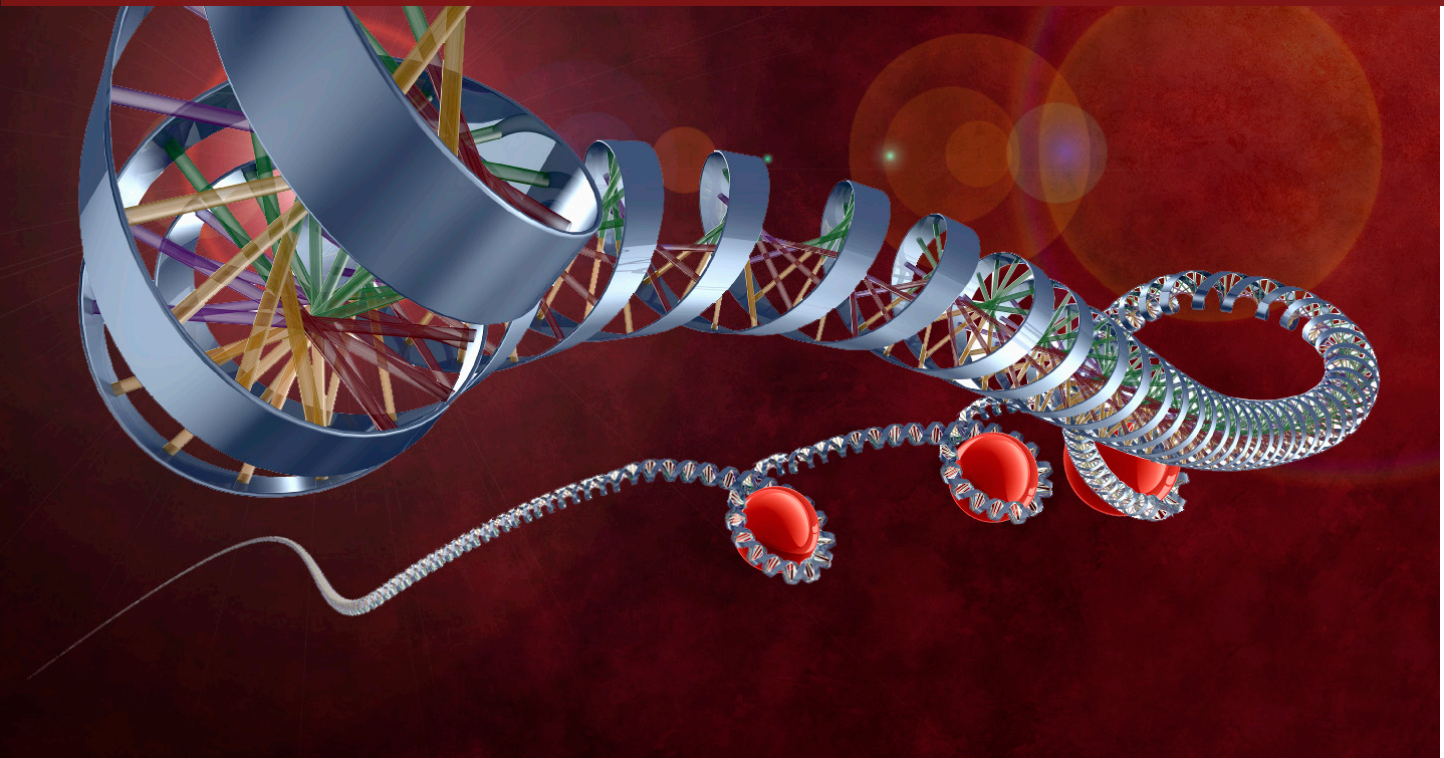


HISTONE DEACETYLASE



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Active Histone Deacetylases

Product Name	Cat #
HDAC1, Active	H83-30G
HDAC10, Active	H92-31G
HDAC11, Active	H93-30G
HDAC2, Active	H84-30G
HDAC3, Active	H85-30G
HDAC4, Active	H86-31G

Product Name	Cat #
HDAC5, Active	H87-31G
HDAC7, Active	H89-31G
HDAC8, Active	H90-30H
HDAC9, Active	H91-31G
SIRT1, Active	S35-31H
SIRT2, Active	S36-30H

Product Name	Cat #
SIRT3, Active	S37-38G
SIRT5, Active	S39-30H
SIRT6, Active	S40-31H
SIRT7, Active	S41-30H

Sirtuin Proteins

Product Name	Cat #
SIRT1 Protein	S35-31EG
SIRT2 Protein	S36-30EG

Product Name	Cat #
SIRT3 Protein	S37-30EG
SIRT4 Protein	S38-30EG

Product Name	Cat #
SIRT5 Protein	S39-30EG
SIRT6 Protein	S40-30EG

Histone Deacetylase

Sirtuins are class III histone deacetylases that have a NAD⁺ deacetylase and/or ADP-ribosyl transferase activity. The 7 members of sirtuins (SIRT1 through SIRT7) post-translationally modify a number of cellular proteins, affecting cell cycle regulation, cell differentiation, genomic stability, tumorigenesis, oxidative stress response, energy metabolism and other cellular processes. Although there is no direct evidence for the role of sirtuins in extending lifespan in mammals, various mouse models show that small molecules targeting SIRT proteins may treat age-associated diseases including diabetes, cancer and cardiac dysfunction.

SignalChem supplies sirtuins that are produced in *E. coli* cells and in Sf9 insect cells. SIRT proteins produced in *E. coli* have basal level of activity, whereas those produced in Sf9 cells are highly active (Fig. 1).

Comparison of enzymatic activity between sirtuins produced in *E. coli* and Sf9 cells

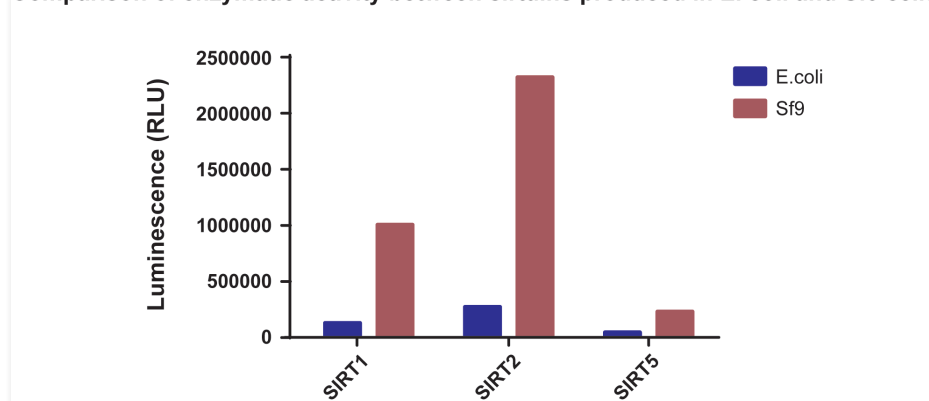


Fig.1 Comparison of SIRT activity of proteins produced in *E. coli* and Sf9 cells. The assays were performed using SIRT-Glo technology.

References:

- Finkel, T. et al. (2009) Recent progress in the biology and physiology of sirtuins. *Nature Reviews* 460:587-591
- Lavu, S. et al. (2008) Sirtuins - novel therapeutic targets to treat age-associated diseases. *Nature Reviews Drug Discovery* 7: 841-853

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