

## Recombinant Human SIRT 1

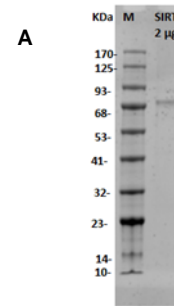
<b>CATALOG #:</b>	P1675-10	10 µg
	P1675-50	50 µg
<b>ALTERNATIVE NAMES:</b>	Sirtuin 1, SIR2L1, hSIRT1, EC 2.3.1.286, NAD-dependent protein deacetylase sirtuin-1, Regulatory protein SIR2 homolog 1, SIR2-like protein 1	
<b>SOURCE:</b>	Insect Cells	
<b>PURITY:</b>	≥95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	63.0 kDa (aa 193 to 747, calculated with N-terminal His tag)	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	50 mM sodium phosphate pH 7.5, 300 mM NaCl, 0.1 mM PMSF, and 0.25 mM DTT in 35% glycerol.	
<b>STORAGE CONDITIONS:</b>	This product is stable at -70 °C for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at or below -70 °C. Avoid repeated freeze-thaw cycles.	

### DESCRIPTION:

SIRT1 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 SIRT1 being a member of class I. SIRT1 is a stress-response and chromatin silencing factor. It is an NAD dependent histone deacetylase involved in various nuclear events such as transcription, DNA replication, and DNA repair. SIRT1 protein binds and deacetylates the p53 protein. Expression of wild type SIRT1 in human cells reduces the transcriptional activity of p53, indicating SIRT1 is involved in the regulation of p53 function via deacetylation. SIRT1 has also been shown to regulate the circadian expression of several core clock genes, and may contribute to the regulation of the circadian rhythm.

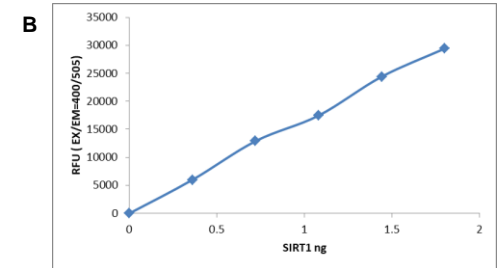
**SPECIFIC ACTIVITY:** > 1,000 µU/mg

**UNIT DEFINITION:** One unit of SIRT1 activity is the amount of enzyme that hydrolyzes the substrate to yield 1.0 µmol of AFC/min when using BioVision's Sirtuin Activity Assay Kit, Cat. No. K324.



**Figure A. SDS-PAGE**

Recombinant SIRT 1 (2 µg) was loaded on SDS-PAGE (4-20%) under reducing conditions and stained with Coomassie Blue.



**Figure B. SIRT1 Activity**

Recombinant SIRT1 activity was measured using BioVision's Sirtuin Activity Assay Kit (Fluorometric), Cat. No. K324.

### RELATED PRODUCTS:

SIRT1 Inhibitor/Activator Screening Kit (Fluorometric) (Cat. No. K325)  
SIRT1 (193-747 aa) (GST-tagged), Human Recombinant (Cat. No. 7264)  
SIRT1 Antibody (Cat. No. 6137)  
SIRT1 Inhibitor, EX-527 (Cat. No. 1652)  
Anti-SIRT1 Polyclonal Antibody (Cat. No. A2345)  
SIRT2 Inhibitor Screening Assay Kit (Fluorometric) (Cat. No. K322)  
SIRT2 Inhibitor, B2 (Cat. No. 2085)  
Active SIRT2, Human Recombinant (Cat. No. 7698)

**FOR RESEARCH USE ONLY! Not to be used on humans**