

Recombinant Human SIRT1, GST-tagged

Cat. No. SIRT1-462H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SIRT1 (amino acids 193- 741) was expressed in an <i>E.coli</i> expression system with N-terminal GST tag. MW=87.2 kDa.
Species	Human
Source	E.coli
Protein Length	193-741 a.a.
Description	Sirtuin 1 also known as NAD-dependent deacetylase sirtuin-1 is a protein that in humans is encoded by the SIRT1 gene. SIRT1 stands for sirtuin (silent mating type information regulation 2 homolog) 1 (<i>S. cerevisiae</i>), referring to the fact that its sirtuin homolog (biological equivalent across species) in yeast (<i>S. cerevisiae</i>) is Sir2. SIRT1 is an enzyme which deacetylates proteins that contribute to cellular regulation (reaction to stressors, longevity).
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20 and 20% glycerol.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Specific Activity	8 pmol/min /μg. Assay condition: 25 mM Tris/Cl, pH8.0, 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl ₂ , and 0.1 mg/ml BSA, 30 μM Biomol substrate, 200 μM NAD ⁺ and 20 ng/μl Sirtuin 1. Incubation condition: 30 min at 30°C.
Purity	> 80%.

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Stability >6 months at –80°C.

GENE INFORMATION

Gene Name	SIRT1 sirtuin (silent mating type information regulation 2 homolog) 1 (<i>S. cerevisiae</i>) [<i>Homo sapiens</i>]
Synonyms	sirtuin (silent mating type information regulation 2 homolog) 1 (<i>S. cerevisiae</i>); SIR2L1; SIRT1; sirtuin 1; SIR2alpha; sir2-like 1; sirtuin type 1; EC 3.5.1.-; OTTHUMP00000019691; OTTHUMP00000060745; SIR2alpha; hSIR2; hSIRT1; SIR2-like protein 1; sirtuin (silent mating type information regulation 2, <i>S. cerevisiae</i> , homolog)
Gene ID	23411
mRNA Refseq	NM_001142498
Protein Refseq	NP_001135970
MIM	604479
UniProt ID	Q96EB6
Chromosome Location	10q21.3
Function	NAD binding; NAD+ ADP-ribosyltransferase activity; NAD-dependent histone deacetylase activity; deacetylase activity; histone binding; hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in linear amides; identical protein binding; metal ion binding; p53 binding; protein C-terminus binding; protein domain specific binding; transcription corepressor activity; zinc ion binding

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