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*E.coli*expression system with N-terminal GST tag. MW=87.2 kDa.
Species	Human
Source	E.coli
ProteinLength	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 (S. cerevisiae), referring to the fact that its sirtuin homolog (biological equivalent across species) in yeast (S. cerevisiae) 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 MgCl2, 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℃.
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 (S. cerevisiae) [Homo sapiens]
Synonyms	sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae); 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, S. cerevisiae, 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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