

## Recombinant SIRT2 (50-356) protein

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**Catalog No:** 31528, 31928

**Lot No:** 14416001

**Expressed In:** *E. coli*

**Quantity:** 100 µg

**Concentration:** 1 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant SIRT2 (50-356) protein is supplied at a concentration of 1 µg/µl in 25 mM Tris pH 8.0, 150 mM NaCl, 5% glycerol.

**Background:** SIRT2 (Sirtuin 2) is a member of the SIR2 / Sirtuin family of NAD<sup>+</sup>-dependant deacetylase enzymes. It has multiple targets for deacetylation, including tubulin, P53, HOXA10, FOXO3A, P300 and FOXO1. SIRT2 suppresses adipogenesis by deacetylating FOXO1, promoting the binding of FOXO1 to PPAR $\gamma$  and subsequent repression of PPAR $\gamma$  mediated transcriptional activation. Similar to SIRT1, SIRT2 also deacetylates histone H4 at lysine 16. SIRT2 is present in the cytoplasm during most of the cell cycle except in the G2/M transition and in mitosis, where it is found in the nucleus, in contact with chromatin, and is required for exit from mitosis.

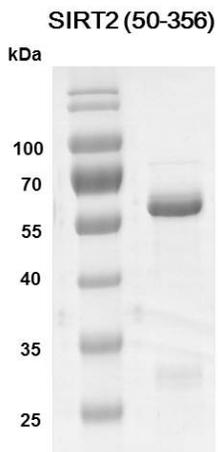
**Protein Details:** Recombinant SIRT2 (50-356) protein that includes amino acids 50 - 356 of human SIRT2 protein (accession number NM\_012237.3) was expressed in *E. coli* and contains an N-terminal GST tag with a molecular weight of 66.5 kDa. The purity of the protein is  $\geq$  85% by SDS-PAGE.

**Application Notes:** This protein is useful for histone deacetylase assays and the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

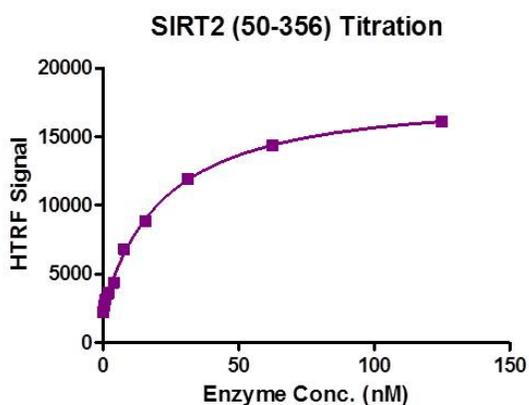
**HDAC Activity Assay Conditions:** 3 µM histone peptide H3K9ac (1-21aa) was incubated with SIRT2 (50-356) in reaction buffer including 25 mM Tris-HCl pH 8.0, 137 mM NaCl, 2.7 mM MgCl<sub>2</sub>, 1 mM KCl, 0.1 mg/ml BSA and 50 µM NAD<sup>+</sup> for 30 min at 37°C. HTRF assay was used for activity detection.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

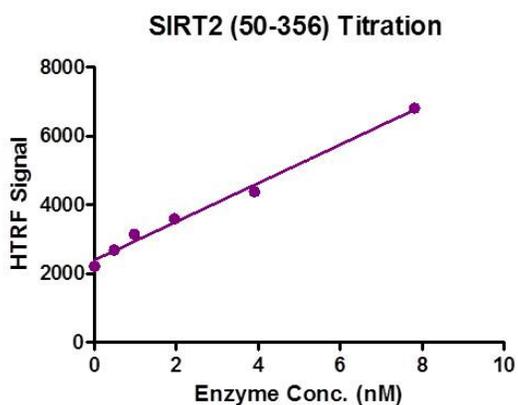


**Recombinant SIRT2 (50-356)** 12.5% SDS-PAGE gel stained with Coomassie Blue.  
**MW:** 66.5 kDa  
**Purity:**  $\geq$  85%



**HTRF assay for SIRT2 (50-356) activity**

3  $\mu$ M histone peptide H3K9ac (1-21) was incubated with SIRT2 (50-356) in reaction buffer for 30 min at 37°C.  
 Anti-H3K9me0 antibody was used to detect reaction products.



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