

SIRT6 Activity Assay Kit (Fluorometric) ab156068

[7 References](#) [2 Images](#)

Overview

Product name	SIRT6 Activity Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Cell culture extracts, Tissue Extracts
Assay type	Enzyme activity
Assay time	1h 00m
Species reactivity	Reacts with: Human
Product overview	<p>Abcam's SIRT6 Activity Assay Kit (Fluorometric) (ab156068) detects deacetylase activity of recombinant SIRT6.</p> <p>Primarily, the SIRT6 Activity Assay Kit (Fluorometric) is designed for the rapid and sensitive evaluation of SIRT6 inhibitors or activators using recombinant SIRT6 or purified SIRT6.</p> <p>Applications for this kit include:</p> <ol style="list-style-type: none"> 1. Screening inhibitors or activators of SIRT6. 2. Detecting the effects of pharmacological agents on SIRT6.

Notes	<p>Histone Deacetylases (HDACs) are a class of enzymes responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4), allowing the histones to wrap the DNA more tightly.</p> <p>HDAC proteins occur in four groups (class I, class IIA, class IIB, class III, class IV) based on function and DNA sequence similarity.</p> <p>Classes I, IIA and IIB are considered "classical" HDACs whose activities are inhibited by trichostatin A (TSA), whereas class III is a family of NAD⁺-dependent proteins (sirtuins) not affected by TSA. Class IV is considered an atypical class on its own, based solely on DNA sequence similarity to the others.</p>
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Platform	Microplate reader
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Properties

Storage instructions	Please refer to protocols.
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Components	100 tests	100 tests
Developer	1 x 500µl	1 x 500µl
Fluoro-Deacetylated Peptide (0.1 mM)	1 x 100µl	1 x 100µl
Fluoro-Substrate Peptide (0.1 mM)	1 x 500µl	1 x 500µl
NAD (8 mM)	1 x 500µl	1 x 500µl
Recombinant SIRT6	1 x 500µl	1 x 500µl
SIRT Assay Buffer	2 x 1ml	2 x 1ml
Stop Solution	2 x 1ml	2 x 1ml

Function

NAD-dependent protein deacetylase. Has deacetylase activity towards histone H3K9Ac and H3K56Ac. Modulates acetylation of histone H3 in telomeric chromatin during the S-phase of the cell cycle. Deacetylates histone H3K9Ac at NF-kappa-B target promoters and may down-regulate the expression of a subset of NF-kappa-B target genes. Acts as a corepressor of the transcription factor HIF1A to control the expression of multiple glycolytic genes to regulate glucose homeostasis. Required for genomic stability. Regulates the production of TNF protein. Has a role in the regulation of life span (By similarity). Deacetylation of nucleosomes interferes with RELA binding to target DNA. May be required for the association of WRN with telomeres during S-phase and for normal telomere maintenance. Required for genomic stability. Required for normal IGF1 serum levels and normal glucose homeostasis. Modulates cellular senescence and apoptosis. On DNA damage, promotes DNA end resection via deacetylation of RBBP8. Has very weak deacetylase activity and can bind NAD(+) in the absence of acetylated substrate.

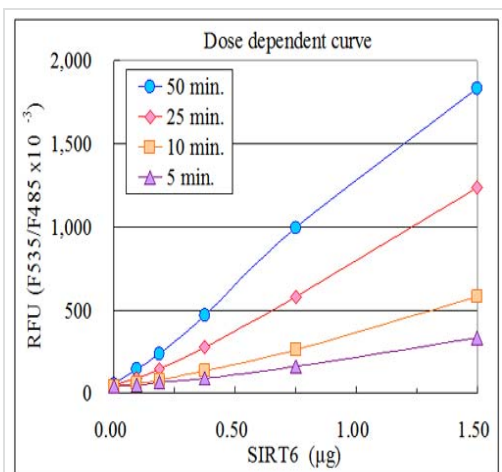
Sequence similarities

Belongs to the sirtuin family. Class IV subfamily.
Contains 1 deacetylase sirtuin-type domain.

Cellular localization

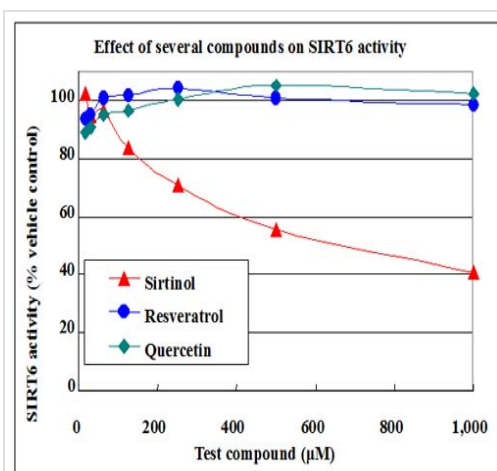
Nucleus, nucleoplasm. Predominantly nuclear. Associated with telomeric heterochromatin regions.

Images



Dose dependent curve of recombinant SIRT6 activity

ab156068 - SIRT6 Activity Assay Kit (Fluorometric)



Effect of different compounds on recombinant SIRT6 activity

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