

Product datasheet

SIRT2 Screening Assay Kit ab133082

1 Image

Overview

Product name SIRT2 Screening Assay Kit

Detection method Fluorescent

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	16			3.8%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	16			3.9%

Assay type Quantitative

Product overview

Abcam's SIRT2 Screening Assay Kit (ab133082) provides a convenient fluorescence-based method for screening SIRT2 inhibitors or activators. The procedure requires only two easy steps, both performed in the same microplate. In the first step, the substrate, which comprises the p53 sequence Gln-Pro-Lys-Lys(epsilon-acetyl)-AMC, is incubated with human recombinant SIRT2 along with its co-substrate NAD⁺. Deacetylation sensitizes the substrate such that treatment with the Developer in the second step releases a fluorescent product. The Fluorophore can be analyzed with an excitation wavelength of 350-360 nm and an emission wavelength of 450-465 nm.

Platform Microplate reader

Properties

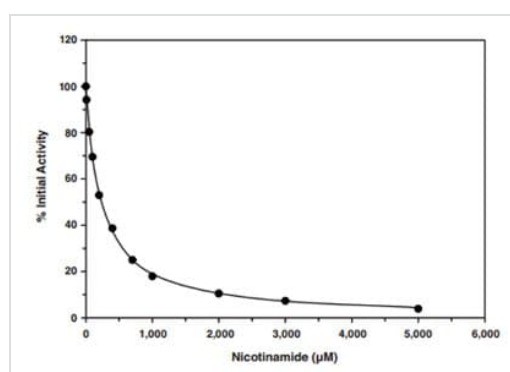
Storage instructions Please refer to protocols.

Components	96 tests
96-Well Plate Cover	1 unit
Half Volume 96-Well Solid Plate (white)	1 unit

Components	96 tests
SIRT2 (human recombinant)	2 vials
SIRT2 Direct Assay Buffer (10X)	1 vial
SIRT2 Direct Developer	1 vial
SIRT2 Direct Fluorophore	1 vial
SIRT2 Direct NAD+	1 vial
SIRT2 Direct Nicotinamide	1 vial
SIRT2 Direct Peptide	2 vials

Function	NAD-dependent protein deacetylase, which deacetylates the 'Lys-40' of alpha-tubulin. Involved in the control of mitotic exit in the cell cycle, probably via its role in the regulation of cytoskeleton.
Tissue specificity	Widely expressed. Highly expressed in heart, brain and skeletal muscle, while it is weakly expressed in placenta and lung. Down-regulated in many gliomas suggesting that it may act as a tumor suppressor gene in human gliomas possibly through the regulation of microtubule network.
Sequence similarities	Belongs to the sirtuin family. Contains 1 deacetylase sirtuin-type domain.
Developmental stage	Peaks during mitosis. After mitosis, it is probably degraded by the 26S proteasome.
Post-translational modifications	Phosphorylated at the G2/M transition of the cell cycle.
Cellular localization	Cytoplasm > cytoskeleton. Colocalizes with microtubules.

Images



Inhibition of SIRT2 by nicotinamide ($IC_{50} = 250 \mu M$)

Functional Studies - SIRT2 Screening Assay Kit
(ab133082)

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