

SIRT2 Inhibitor Screening Assay Kit (Fluorometric)

Product Information

Cat

Kit-1083

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Description

Sirtuin or Sir2 proteins are a class of proteins that possess either histone deacetylase or mono-ribosyltransferase activity. Sirtuins have been implicated in influencing aging and regulating transcription, apoptosis and stress resistance, as well as energy efficiency and alertness during low-calorie situations. Unlike other known protein deacetylases, which simply hydrolyze acetyl-lysine residues, the sirtuin-mediated deacetylation reaction couples lysine deacetylation to NAD hydrolysis. This hydrolysis yields O-acetyl-ADP-ribose, the deacetylated substrate and nicotinamide, itself an inhibitor of sirtuin activity. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity. In Sirtuin inhibitor screening Kit, Sirtuin deacetylates the substrate and then the developer cleaves the deacetylated substrate to release the fluorescent group, which can be detected fluorometrically at Ex/Em = 395/541 nm. In the presence of SIRT inhibitor, the deacetylation will be impeded which prevents the cleavage of the substrate to release the fluorescent group. The kit provides a rapid, simple, sensitive, and reliable test, which is also suitable for high-throughput screening of SIRT2 inhibitors. Inhibitor control (Nicotinamide) is included to compare the efficacy of the test inhibitors.

Applications

Screening and characterization of Sirtuin inhibitors.

Storage

-20°C

Shipping

Gel Pack

SIRT2 Inhibitor Screening Assay Kit (Fluorometric)

Size

100 assays

Kit Components

Assay Buffer; Substrate; Cofactor; Developer; SIRT2 Enzyme; Inhibitor Control (Nicotinamide)

Target Species

Mammalian

Detection method Fluorescence (Ex/Em 395/541 nm)

Features & Benefits

Simple procedure;

Fast and convenient;

The assay is sensitive, reliable, and high-throughput adaptable.