CREATIVE BIOMART®
Assay Kit

SIRT1 FRET-Based Screening Assay Kit

Product Information

Cat.No. Kit-2025

Size

96 wells

Description

Sirtuins (SIRTs) represent a distinct class of trichostatin A-insensitive lysyl-deacetylases (class III HDACs). Human SIRT1 is the homolog of yeast Sir2 (Silent information regulator 2) and has been shown to regulate the activity of the p53 tumor suppressor and inhibit apoptosis. Small molecule activators of SIRT1, such as resveratrol, extend lifespan in yeast and C. elegans in a manner that resembles caloric restriction. The SIRT1 FRET-based Screening Assay Kit provides a convenient fluorescence-based method for screening SIRT1 inhibitors or activators. The procedure requires only two easy steps, both performed in the same microplate. In the first step, the substrate, which is coupled to the fluorophore and quencher, is incubated with human recombinant SIRT1 along with its cosubstrate NAD+. Deacetylation sensitizes the substrate such that treatment with the developer in the second step results in the separation of the quencher and fluorophore. The resulting fluorescence can be easily analyzed using an excitation wavelength of 335-345 nm and emission wavelength of 440-465 nm.

Storage

-80°C

Kit Components

SIRT1 FRET Assay Buffer (10X): 1 vial SIRT1 (human recombinant): 1 vial SIRT1 FRET Peptide: 2 vials SIRT1 FRET NAD^+: 1 vial SIRT1 FRET Stop Solution: 1 vial SIRT1 FRET Developer: 1 vial SIRT1 FRET Fluorophore: 1 vial Half Volume 96-Well Plate (white): 1 plate 96-Well Cover Sheet: 1 cover

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