CREATIVE BIOMART®
Assay Kit

SIRT1 fluorometric drug discovery assay Kit

Product Information

Cat.No. Kit-0785

Product Overview

Useful for inhibitor screening or characterizing enzyme kineticsIncludes optimal substrate selected from a panel of acetylated sites in p53 and histonesSupplied with enough recombinant enzyme for 96 assays (1 x 96-well plate)

Size

96 wells

Description

A FLUOR DE LYS fluorescent assay system. The SIRT1 Fluorescent Activity Assay/Drug Discovery Kit is a complete assay system designed to measure the lysyl deacetylase activity of the recombinant human SIRT1 included in the kit. The kit is ideal for chemical library screening for candidate inhibitors or activators or kinetic assay of the enzyme under varying conditions. The FLUOR DE LYS SIRT1 assay is based on the FLUOR DE LYS SIRT1 Substrate and FLUOR DE LYS Developer II combination. The assay procedure has two steps. First, the FLUOR DE LYS SIRT1 Substrate, which contains a peptide comprising amino acids 379-382 of human p53 (Arg-His-Lys-Lys (Ac)). Deacetylation of the substrate sensitizes the substrate so that, in the second step, treatment with the FLUOR DE LYSDeveloper II produces a fluorophore.

Applications

Fluorescence microscopy, HTS

Storage

-80°C

Kit Components

SIRT1 (Sirtuin 1, hSir2SIRT1) (human, recombinant)(100 U; One U=1 pmol/min at 37°C, 250 µM, FLUOR DE LYS Substrate, 500 µM NAD; Recombinant enzyme dissolved in 25mM TRIS, pH 7.5, 100mM sodium chloride, 5mM dithiothreitol and 10% glycerol. See vial label for activity and protein

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concentrations)Storage: -70°C; AVOID FREEZE/THAW CYCLES!FLUOR DE LYS SIRT1, Deacetylase Substrate(100µl; 5mM solution in 50mM TRIS/Cl, pH 8.0, 137mM sodium chloride, 2.7mM potassium chloride, 1mM magnesium chloride)Storage: -70°CFLUOR DE LYS Developer II Concentrate (5x)(5 x 250 µl; 5x Stock Solution; Dilute in Assay Buffer before use)Storage: -70°CNAD (Sirtuin Substrate)(500 µl; 50 mM β-Nicotinamide adenine dinucleotide (oxidized form) in 50mM TRIS/CL, pH 8.0, 137mM sodium chloride, 2.7mM potassium chloride, 1mM magnesium chloride)Storage: -70°CNicotinamide (Sirtuin Inhibitor)(500µl; 50 mM Nicotinamide in 50mM TRIS/Cl, pH 8.0, 137mM sodium chloride, 2.7mM potassium chloride, 1mM magnesium chloride)Storage: -70°CResveratrol (Sirtuin Activator)(10 mg; Solid MW: 228.2, soluble in DMSO or 100% ethanol (to 100mM)Storage: -70°CSuramin sodium (Sirtuin Inhibitor)(10 mg; Solid MW: 1429.2, soluble in water or assay buffer (to 25mM))Storage: -70°CFLUOR DE LYS Deacetylated Standard(30 µl; 10mM in DMSO)Storage: -70°CSirtuin Assay Buffer(50mM TRIS/Cl, pH 8.0, 137mM sodium chloride, 2.7mM potassium chloride, 1mM magnesium chloride, 1 mg/ml bovine serum albumin) (Prod. No. BML-KI286) (20 ml)Storage: -70°C1/2 volume microplateStorage: Room temperature1/2 volume white microplateStorage: Room temperature

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