CREATIVE BIOMART®
Assay Kit

MLL1 SAM-Screener Assay Kit

Product Information

Cat.No. Kit-1977

Size

384 wells

Description

Most histone lysine methyltransferases contain a conserved domain (SET) that utilizes S-adenosyl-L-methionine (SAM or AdoMet) as a co-factor to catalyze the methylation of the epsilon amino group of lysine. Mixed-lineage leukemia (MLL1) is a member of the trithorax group (trxG)/Set1-like family of gene activators that contains histone methyltransferase activity specific for lysine 4 of histone H3. This methylation plays an important role in gene activation at various developmentally regulated loci, such as the Hox gene loci.This fluorescence polarization assay is based upon a proprietary small molecule fluorescent probe* that binds to the SAM binding pocket in MLL1. Binding of the small molecule probe to MLL1 induces an increase in fluorescence polarization. Binding of the probe can be competed with the endogenous cofactor SAM or by the inhibitor sinefungin, but is unaffected by the histone H3 peptide substrate. The MLL1 SAM-Screener Assay is robust (Z" >0.6) and exhibits a greater than 100 mP shift over a range of 0-500 nM MLL1. The assay is suitable for high-throughput screening in the provided 384-well plate or can be scaled to higher density plate formats (e.g., 1,536-well) if desired.

Storage

-80°C

Kit Components

SAM-Binding Site Assay Buffer (10X): 1 vial/2 ml; 1 vial/10 ml; -20°CMLL1 (human recombinant) Assay Enzyme: 1 vial/550 µl; 5 vial/550 µl; -80°CSAM-Binding Site Probe*: 1 vial; 5 vials; -20°CSAM-Binding Site Positive Control: 1 vial/100 µg; 5 vials/100 µg; -20°C384-Well Solid Plate (low volume; black) 1 plate: 5 plates; RT Foil Plate Covers: 1 cover; 5 covers; RT

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