CREATIVE BIOMART®
Assay Kit

SET7/9 SAM-Screener Assay Kit

Product Information

Cat.No.

Kit-2022

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 lysine.1 SET7/9 (KMT7) is a SET domain-containing mono-methyltransferase that acts on a large number of histone and non-histone targets including histone H3, TAF10, p53, viral Tat, and estrogen receptor a.2,3 Given this broad substrate specificity, SET7/9 has important implications for a variety of human diseases, and SET7/9 has emerged as a model for studying the catalytic mechanism SET domain histone methyltransferases. This fluorescence polarization assay is based upon a proprietary small molecule fluorescent probe* that binds to the SAM binding pocket in SET7/9. Binding of the small molecule probe to SET7/9 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 SET7/9 SAM-Screener Assay is robust (Z" >0.6) and exhibits a greater than 100 mP shift over a range of 0-250 nM SET7/9. 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.*United States Patent 9,120,820

Storage

-80°C

Kit Components

SAM-Binding Site Assay Buffer (10X): 1 vial/2 ml; 1 vial/10 ml; -20°CSET7/9 (human recombinant) Assay Enzyme: 1 vial/25 µl; 5 vial/25 µl; -80°C SAM-Binding Site Probe*: 1 vial; 5 vials; -20°CSAM-Binding Site Positive Control: 1 vial/20 µg; 5 vials/20 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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