

IDH1 R132H Mutant Inhibitor Screening Kit (Colorimetric)

Product Information

Cat

Kit-2363

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Product Overview

In eukaryotic cells, Isocitrate Dehydrogenase (IDH1, IDH2 and IDH3) is an enzyme that catalyzes the decarboxylation of Isocitrate producing α -Ketoglutarate and CO₂. Mutations of the different isoforms of IDH, IDH1 and IDH2, are commonly found in human cancers. Among these mutants, the cytosolic IDH1 mutant at the Arginine 132 position substitution with Histidine (IDH1 R132H) is the most commonly mutation found in primary human brain cancers. Isocitrate Dehydrogenase Mutant (IDH mutant) causes a "gain-of-function" mutation, which reduces its affinity for isocitrate and favors the conversion of α -ketoglutarate to D-2-Hydroxyglutarate (D2HG). High level of D2HG correlates with an increased risk for malignant brain tumors. Thus, the search for potential novel as well as specific inhibitors for this target has increased considerably in recent years. In IDH1 R132H Mutant Inhibitor Screening Kit, IDH1 R132H Mutant oxidizes NADPH into NADP⁺, which decreases the absorbance at 340 nm. In the presence of IDH1 R132H Mutant inhibitor, the reaction is impeded. An IDH1 R132H Mutant Inhibitor Control is included to compare the efficacy of the sample inhibitors. The assay is high-throughput adaptable and can be completed in less than 1 hr.

Applications

This assay has been designed for screening/studying/characterizing potential IDH1 R132H Mutant inhibitors

Storage

-20°C

Shipping

Gel Pack

IDH1 R132H Mutant Inhibitor Screening Kit (Colorimetric)

Size

100 assays

Kit Components

IDH1 R132H Assay Buffer; IDH1 R132H Substrate; NADPH; IDH1 R132H Enzyme; IDH1 R132H Inhibitor (100X)

Target Species

Human

Detection method Absorbance (OD 340 nm)

Features & Benefits

Simple procedure; Fast and convenient; Screening/studying/characterizing potential Mutant IDH inhibitors