

Protein Disulfide Isomerases (PDI) Inhibitor Screening Kit (Fluorometric)

Product Information

Cat

Kit-2378

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Product Overview

Protein Disulfide Isomerases (PDI, EC: 5.3.4.1) constitute a thio-disulfide oxidoreductase family. PDI is abundant in the lumen of endoplasmic reticulum (ER). PDI plays an essential role in catalyzing the rearrangement of S-S bonds in proteins and functions as a chaperon. Recent studies show that PDI activity is essential for cancer cell survival and proliferation, and targeting the PDI activity with its inhibitors abrogates survival responses to ER stress in cancer cells. Thus, identification and development of PDI inhibitors represents an important approach in cancer therapy. In PDI Inhibitor Screening Kit, the PDI converts Insulin into its reduced form in the presence of Dithiothreitol (DTT). This reduced insulin binds to a fluorescent probe to generate an intensely fluorescent product (Ex/Em = 440/490 nm). In the presence of a PDI inhibitor, the reaction is impeded/abolished, resulting in a decrease or total loss of fluorescence. This assay kit can be used to screen/study/characterize the potential inhibitors of Protein Disulfide Isomerase. The assay is simple, high-throughput adaptable and can be performed within 60 min.

Applications

Screening/characterizing/studying potential inhibitors of Protein Disulfide Isomerase (PDI)

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components

PDI Assay Buffer; PDI Substrate; PDI Probe (in DMSO) (20X); DTT (100X); PDI Enzyme; PDI Inhibitor Control (Iodoacetamide)

Detection method Fluorescence (Ex/Em = 440/490 nm)

Features & Benefits

Simple and High throughput adaptable

60 minutes short protocol

Detect using a fluorometer or fluorescence microplate reader.
