

Human Calpain 1 Inhibitor Screening Kit (Fluorometric)

Product Information

Cat

Kit-2358

Cat.No.

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Product Overview

Calpain 1 is calcium-dependent, non-lysosomal cysteine protease with low calcium requirement. It is expressed ubiquitously and in the brain, mainly localized to the cell body and dendrites of neurons and to a lesser extent in axons and glial cells. Hyperactivation of calpains is implicated in a number of pathologies associated with altered calcium homeostasis such as Alzheimer's disease as well as secondary degeneration resulting from acute cellular stress following cerebral (neuronal) ischemia, traumatic brain injury and spinal cord injury. Human calpain 1 inhibitor screening kit is based on the detection of cleavage of calpain substrate Ac-LLY-AFC. Ac-LLY-AFC possess very weak fluorescence; upon cleavage of the substrate by calpain 1, free AFC can be quantified fluorometrically (Ex/Em = 400/505 nm). In the presence of potent Calpain 1 inhibitor, the hydrolyzation of substrate will be impeded. The kit provides a rapid, simple, sensitive, and reliable test suitable for high throughput screening of Calpain 1 inhibitors. Inhibitor control (Calpain inhibitor 1, ALLN) is included to compare the efficacy of test inhibitors.

Applications

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Storage

-80°C

Shipping

Dry Ice

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Size

100 assays

Kit Components

Assay Buffer; Substrate; Calpain 1 Enzyme; Inhibitor Control (Calpain Inhibitor 1, ALLN) [1 μ M]

Target Species

Mammalian

Detection method Fluorescence (Ex/Em= 400/505 nm).

Features & Benefits

Simple procedure; Fast and convenient; The assay is sensitive, stable and high-throughput adaptable