

PDE1C TR-FRET Assay Kit

Product Information

Cat.No.

Kit-1831

Product Overview

Phosphodiesterases (PDEs) play an important role in dynamic regulation of cAMP and cGMP signaling. PDE1C is a calmodulin-dependent PDE that is expressed principally in human myocardium. The assay is based on the generation of FAM-labeled nucleotide monophosphates by the phosphodiesterase. These phosphate groups bind to terbium-labeled nanoparticles, resulting in energy transfer from the terbium to the FAM, which emits a fluorescent signal at 520 nm. The change in fluorescent intensity can be easily measured using a fluorescence plate reader.

Size

96 reactions

Description

The PDE1C TR-FRET Assay Kit is designed for identification of inhibitors of PDE1C using TR-FRET (Time Resolved Fluorescence Resonance Energy Transfer) technology. Using this kit, only two simple steps on a microtiter plate are required for the PDE1C activity assay. First, the fluorescent-labeled cAMP is incubated with a sample containing PDE1C for 1 hour. Second, a binding agent and a terbium donor are added to the reaction mix and incubated for 30 minutes. Then, fluorescence intensity can be measured using a fluorescence reader.

Applications

Great for studying enzyme kinetics and screening small molecular inhibitors for drug discovery and HTS applications.

Storage

At least 6 months from date of receipt, when stored as directed. Kit components require different storage conditions. Be sure to store each component at the proper temperature upon arrival.

Kit Components

PDE1C TR-FRET Assay Kit

PDE1C recombinant enzyme: 1 µg; -80°C FAM-Cyclic-3', 5'-AMP (20 µM): 20 µl; -80°C PDE assay buffer: 25 ml; -20°C Tb donor: 30 µl; -80°C Binding Agent: 200 µl; +4°C Binding Buffer A: 20 ml; +4°C Binding Buffer B: 20 ml; +4°C Black, low binding NUNC microtiter plate: 1; Room temp.
