CREATIVE BIOMART®
Assay Kit

PDE1B TR-FRET Assay Kit

Product Information

Cat.No. Kit-1827

Product Overview

Phosphodiesterases (PDEs) play an important role in dynamic regulation of cAMP and cGMP signaling. PDE1B is a calcium/calmodulin-dependent cyclic nucleotide phosphodiesterase that is highly expressed in the striatum. It plays a physiological role in the central nervous system, and PDE1B activity has been linked to impaired cognition and spatial learning. 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 PDE1B TR-FRET Assay Kit is designed for identification of inhibitors of PDE1B 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 PDE1B activity assay. First, the fluorescent-labeled cAMP is incubated with a sample containing PDE1B 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

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PDE1B 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.

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