CREATIVE BIOMART®
Assay Kit

PDE10A Assay Kit

Product Information

Cat.No. Kit-2043

Product Overview

The PDE10A Assay Kit is designed for identification of PDE10A inhibitors using fluorescence polarization. The assay is based on the binding of a fluorescent nucleotide monophosphate generated by PDE10A to the binding agent. The key to the PDE10A Assay Kit is the specific binding agent. Using this kit, only two simple steps on a microtiter plate are required for PDE10A reactions. First, the fluorescently labeled cAMP is incubated with a sample containing PDE10A for 1 hour. Second, a binding agent is added to the reaction mix to produce a change in fluorescent polarization that can then be measured using a fluorescence reader equipped for the measurement of fluorescence polarization.

Size

96 reactions

Description

Phosphodiesterases (PDEs) play an important role in the dynamic regulation of cAMP and cGMP signaling. PDE10A is a dual substrate PDE highly expressed in striatal medium spiny neurons. PDE10A inhibitors can improve the cognitive symptoms of schizophrenia, and exhibit potential therapeutic value for Huntington"s Disease. Phosphodiesterases catalyze the hydrolysis of the phosphodiester bond in dye-labeled cyclic monophosphates. Beads selectively bind the phosphate group in the nucleotide product. This increases the size of the nucleotide relative to unreacted cyclic monophosphate. In the polarization assay, dye molecules with absorption transition vectors parallel to the linearly-polarized excitation light are selectively excited. Dyes attached to the rapidly-rotating cyclic monophosphates will obtain random orientations and emit light with low polarization. Dyes attached to the slowly-rotating nucleotide-bead complexes will not have time to reorient and therefore will emit highly polarized light.

Applications

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

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

CREATIVE BIOMART®
Assay Kit

PDE10A Assay Kit

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

PDE10A2 recombinant enzyme: 1 µg; -80°C FAM-Cyclic-3", 5"-AMP (20 µM): 50 µl; -80°C PDE assay buffer: 25 ml; -20°C Binding Agent: 100 µl; +4°C Binding Agent Diluent: 10 ml; +4°C Black, low binding, microtiter plate: 1; Room temp.

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA