CREATIVE BIOMART®
Assay Kit

# PDE7A Assay Kit

## Product Information

**Cat.No.** Kit-1847

**Product Overview**

Phosphodiesterases (PDEs) play an important role in the dynamic regulation of cAMP and cAMP signaling. PDE7A is widely expressed in various tissues including skeletal muscle, T lymphocytes, brain and pancreas and plays and an important role in the regulation of osteoblastic differentiation.

**Size**

384 reactions

**Description**

The PDE7A Assay Kit is designed for identification of PDE7A inhibitors using fluorescence polarization. The assay is based on the binding of a fluorescent nucleotide monophosphate generated by PDE7A to the binding agent. PDE7A catalyzes the hydrolysis of the phosphodiester bond in dye-labeled cyclic adenosine monophosphate (cAMP). Nanoparticle beads selectively bind the phosphate group in the nucleotide product. This increases the size of the nucleotide relative to unreacted cAMP. Since the degree of polarization of a fluorophore is inversely related to its molecular rotation, dyes attached to the slowly-rotating nucleotide-bead complexes will not have time to reorient and therefore will emit highly polarized light. Conversely, dyes attached to the rapidly-rotating cyclic monophosphates will obtain random orientations and emit light with low polarization. The key to the PDE7A Assay Kit is the specific binding agent. Using this kit, only two simple steps on a microtiter plate are required for PDE7A reactions. First, the fluorescently labeled cAMP is incubated with a sample containing PDE7A 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.

**Applications**

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

**Storage**

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

# PDE7A Assay Kit

Stable 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**

PDE7A 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: 250 µl; +4°C Binding Agent Diluent: 25 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