

Technical Data Sheet

ACTOne™ Membrane Potential Dye Kit

Product Information

Catalog Number: AG-10500-211

Components: 10X ACTOne Membrane Potential Dye Solution, 100 ml; 10X ACTOne Dye Dilution Buffer, 110 ml

Description

cAMP is a key second messenger involved extensively in cellular signal transduction pathways associated with the majority of G-protein coupled receptors (GPCRs). The activation of these GPCRs by neurotransmitters, lipids, nucleotides, peptides and hormones results in the activation or the inhibition of plasma membrane-bound adenylate cyclase through heterotrimeric G-proteins. The ACTOne cAMP assay from Codex BioSolutions is the first in its class in providing real-time information on intracellular cAMP changes in a high-throughput format without a cell lysis step. The assay works with cell lines provided by Codex BioSolutions that contain a proprietary exogenous Cyclic Nucleotide-Gated (CNG) channel. The channel is activated by elevated intracellular levels of cAMP, resulting in ion flux (often detectable by calcium-responsive dyes) and cell membrane depolarization (which can be detected with a fluorescent membrane potential (MP) dye).

The ACTOne membrane potential dye kit allows both end-point and kinetic measurement of intracellular cAMP changes with a FLIPR, or a fluorescence microplate reader. It is a simple homogenous assay involving only dye and compound addition steps, allowing easy implementation in a high-throughput environment.

Storage

10X ACTOne Membrane Potential Dye Solution should be protected from light and stored at -20°C. 10X ACTOne Dye Dilution Buffer should be stored at room temperature.

Materials not included

Phosphodiesterase (PDE) inhibitor Ro 20-1724 (50mM stock in DMSO, store at -20°C) Sigma B8279; Dulbecco's Phosphate Buffered Saline (DPBS) Sigma D8537; Water Sigma 320072