

## Product datasheet

# Cellular Membrane Potential Assay Kit (Fluorometric - Red) ab176765

[2 Images](#)

### Overview

<b>Product name</b>	Cellular Membrane Potential Assay Kit (Fluorometric - Red)
<b>Detection method</b>	Fluorescent
<b>Sample type</b>	Adherent cells, Suspension cells
<b>Assay type</b>	Cell-based (quantitative)
<b>Species reactivity</b>	<b>Reacts with:</b> Mammals, Other species
<b>Product overview</b>	Abcam's Cellular Membrane Potential Assay Kit (Fluorometric - Red) (ab176765) is a homogeneous assay with fast read time. It uses a proprietary long wavelength membrane potential indicator to detect the membrane potential change that is caused by the opening and closing of the ion channels. The red fluorescence of the membrane potential indicator used in the kit has enhanced fluorescence upon entering cells and minimizes the interferences resulted from the screening compounds and/or cellular autofluorescence.

**Notes**

Membrane potential is the difference in voltage between the interior and exterior of a cell. The membrane potential allows a cell to function as a battery, providing power to operate a variety of "molecular devices" embedded in the membrane. In electrically excitable cells such as neurons, membrane potential is used for transmitting signals between different parts of a cell. Opening or closing of ion channels at one point in the membrane produces a local change in the membrane potential, which causes electric current to flow rapidly to other points in the membrane. Ion channels have been identified as important drug discovery targets.

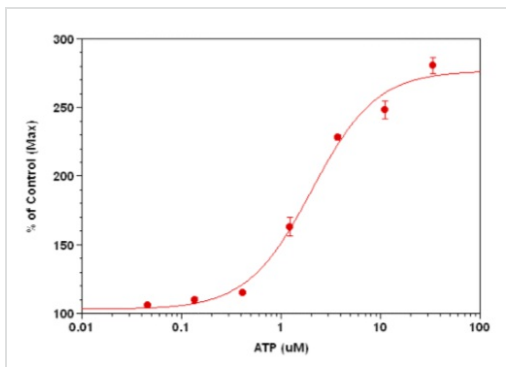
**Platform** Microplate reader

### Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

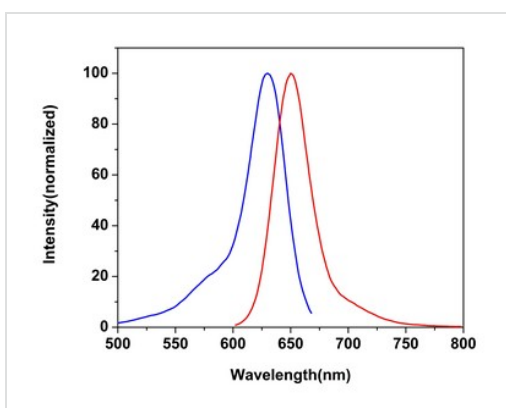
Components	1 x 96 tests	10 x 96 tests	100 x 96 tests
10X MP Sensor	1 x 1ml	1 x 10ml	10 x 10ml
HHBS	1 x 9ml	1 x 100ml	0 x 0ml

### Images



ATP Dose Response in HEK cells transiently transfected with P2X receptor

HEK cells transiently transfected with P2X receptor were seeded overnight at 40,000 cells/100  $\mu$ L/well in a black wall/clear bottom 96-well plate. The cells were incubated with 100  $\mu$ L of the MP sensor in a 5% CO<sub>2</sub>, 37 °C incubator for 60 minutes. ATP (50  $\mu$ L/well) was added to achieve the final indicated concentrations. The fluorescence signal was measured with bottom read mode at Ex/Em = 620/650 nm (cutoff at 630 nm).



Excitation and Emission Spectra for Cellular Membrane Potential Assay Kit (Fluorometric - Red) (ab176765)

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