

Calcium Assay Kit (Luminometric) ab112114

画像数 1

製品の概要

製品名	Calcium Assay Kit (Luminometric)
検出方法	Luminescent
サンプルの種類	Adherent cells, Suspension cells
アッセイタイプ	Cell-based
製品の概要	<p>Calcium flux assays are preferred methods in drug discovery for screening G protein coupled receptors (GPCR). This kit uses a highly calcium-sensitive and membrane-permeable coelenterazine analog as a calcium indicator for the cells that are transfected with apoaequorin gene. Aequorin is a calcium-sensitive bioluminescent protein from the jellyfish Aequorea victoria that has been used extensively as a calcium indicator in cells. The aequorin complex emits blue light when bound to calcium ions. The luminescence intensity is directly proportional to the Ca^{2+} concentration.</p> <p>ab112114 is much more sensitive than the fluorescence-based calcium assays. This kit provides an optimized assay method for monitoring the G-protein-coupled receptors and calcium channels. The assay can be performed in a convenient 96-well or 384-well microtiter-plate format and easily adapted to automation. It might be useful for monitoring the intracellular calcium mobilization in a specified compartment given that recombinant apoaequorin proteins can now be targeted to specific organelles, cells and tissues. ab112114 is more sensitive than the fluorescent calcium assays.</p> <p>Visit our FAQs page for tips and troubleshooting.</p>
特記事項	ab112114 should be stored desiccated.
試験プラットフォーム	Microplate reader

製品の特性

保存方法 Store at -20°C. Please refer to protocols.

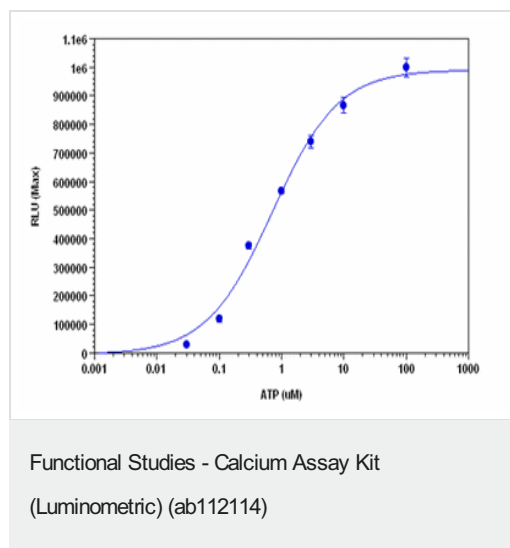
内容	10 x 96 tests	100 x 96 tests
100% ETOH	1 x 500µl	1 x 5000µl
Assay Buffer	1 x 100ml	1 x 100ml

内容	10 x 96 tests	100 x 96 tests
Coelenterazine Analog	1 vial	10 vials

関連性

Calcium is essential for all living organisms, where Ca^{2+} sequestration and release into and out of the cytoplasm functions as a signal for many cellular processes. 99% of calcium is found in bones and teeth with the remaining 1% found in the blood and soft tissue. Serum calcium levels are tightly controlled (8.4-11.4 mg/dL) and any variation outside this range can have serious effects. Calcium plays a role in mediating the constriction and relaxation of blood vessels, nerve impulse transmission, muscle contraction, and hormone secretion. Calcium ion channels control the migration of calcium ions across cell membranes, permitting the activation and inhibition of a wide variety of enzymes. Causes of low calcium levels include chronic kidney failure, vitamin D deficiency, and low blood magnesium levels that can occur in severe alcoholism.

画像



ATP Dose Response on CHO-aeq cells. CHO cells stably transfected with apoaquorin were seeded overnight at 50,000 cells/100 μL /well in a white wall/clear bottom 96-well plate. The growth medium was removed and the cells were incubated with 100 μL of dye-loading solution using ab112114 for 3 hours at room temperature and protected from light. ATP (25 μL /well) was added to achieve the final indicated concentrations. The EC_{50} of ATP is about 0.8 μM .

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