

FLIPR Screening

Cell based assay used to examine the movement of calcium or potassium

aurelia
bioscience

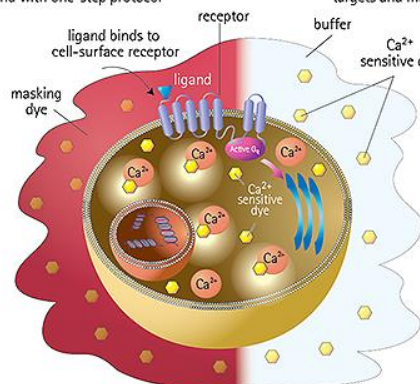
bioassays + screening

How it works:

- Cells either transiently or stably express the target of interest e.g. a GPCR receptor, a potassium channel.
- Cells adhere to wells, are loaded with a fluorescence dye that is none fluorescent in the absence of calcium or potassium but fluorescent when the ion is present.
- The concentration of the ion is proportional to the stimulus added to the cells.
- A quenching dye can be used to negate the dye in solutions (not in cells) to avoid elevated background signal

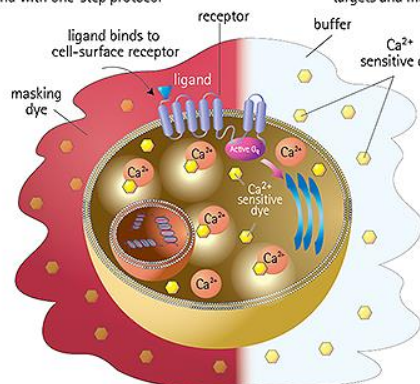
Calcium 6

Significantly reduce fluorescence background with one-step protocol



Calcium 6-QF

Quench-free option for sensitive targets and multiplexing



Increase in cytosolic Ca²⁺ can be detected by FLIPR or FlexStation microplate readers using calcium-sensitive dye indicators

Applications:

- Antagonist and agonist screening in recombinant cell based assays (e.g. GPCR's, potassium channels)
- Phenotypic screening of 7-TM receptors in human primary cells (e.g. neutrophils)

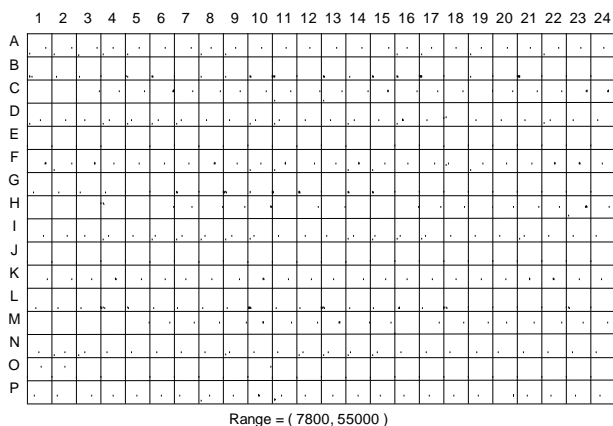


Fig. 1. Image showing kinetic responses (time on x-axis, fluorescence on y-axis) of 384 well plate following treatment with ligand that has induced a fluorescent response from the cells

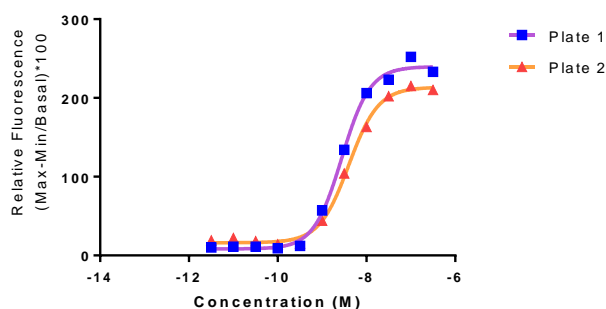


Fig. 2. A number of active compounds from initial screening (Fig. 1.) were re-tested as a dose-response curve in order to determine a rank order of potency for the compounds