

FMAT Screening

Cell- or bead-based assay used to examine the binding of fluorescently tagged ligands to cell surface receptors

aurelia
bioscience

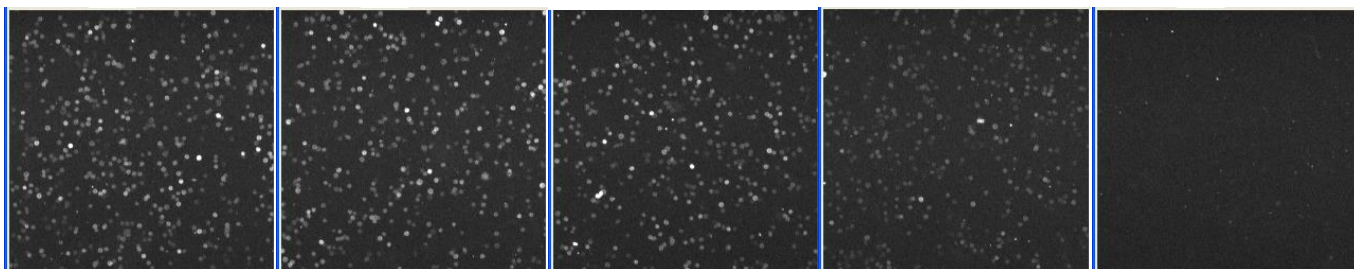
bioassays + screening

How it works:

- Homogenous assay that does not require separating bound fluorescent ligand from free (in solution)
- Technology identifies 'objects' (cells or beads) then measures the amount of fluorescence in close proximity to the object and ignores fluorescence in solution
- Can be used for cell surface receptors or receptors chemically linked to beads

Applications:

- Examine the binding and competition of a compound for binding to a cell-surface receptor
- Use beads labelled with antibodies or cell membranes to examine the binding and competition for binding from compounds and biologics



Compound concentration

Fig. 1. Images taken from the reader showing (left) fluorescently labelled ligand binding to the cell-surface receptor resulting in the appearance of the cells (white dots). As the competing compound is added to cells at increasing concentrations the fluorescent ligand dissociates from the cell surface receptor resulting in a decrease in observable fluorescence.

Fig. 2. A number of active compounds from initial screening in FMAT at 10 μ M then subsequently compounds were re-tested as a dose-response curve in order to determine a rank order of potency for the compounds. Two compounds are shown to compete with the native ligand for binding to the cell surface receptor with IC_{50} 's of 2nM and 11nM

