

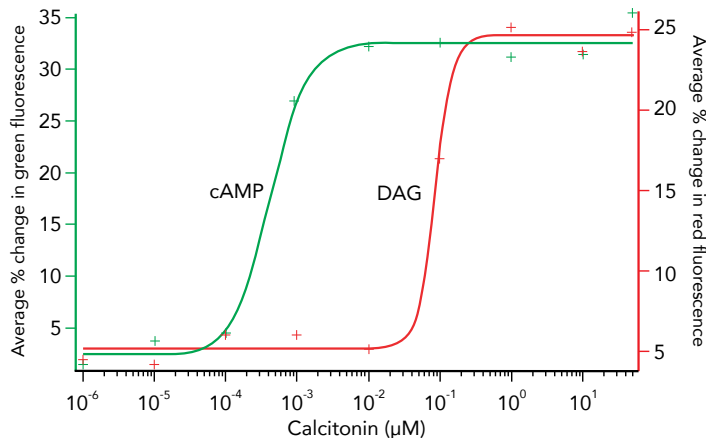


Montana Molecular develops single-color genetically encoded biosensors for detection of signal transduction pathways in living cells. Our sensors fluoresce in either green or red, and they can be combined with one another for the simultaneous detection of multiple analytes. Viral packaging means that signaling can be measured in any cell type.

Robust GPCR Assays in Living Cells

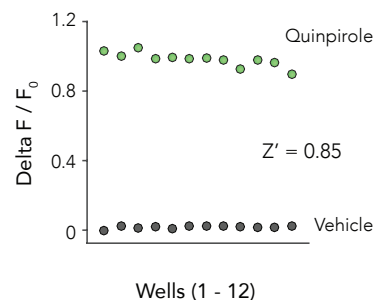
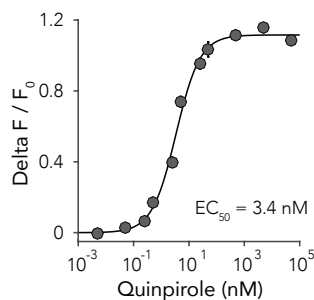
- Viral delivery to any cell type
- Physiologically-relevant and cell friendly
- No forskolin or IBMX needed
- No enzymes or co-factors
- Fluorescence imaging or plate reader detection ($Z' > 0.8$)

Multiplex measurement: Gs and Gq



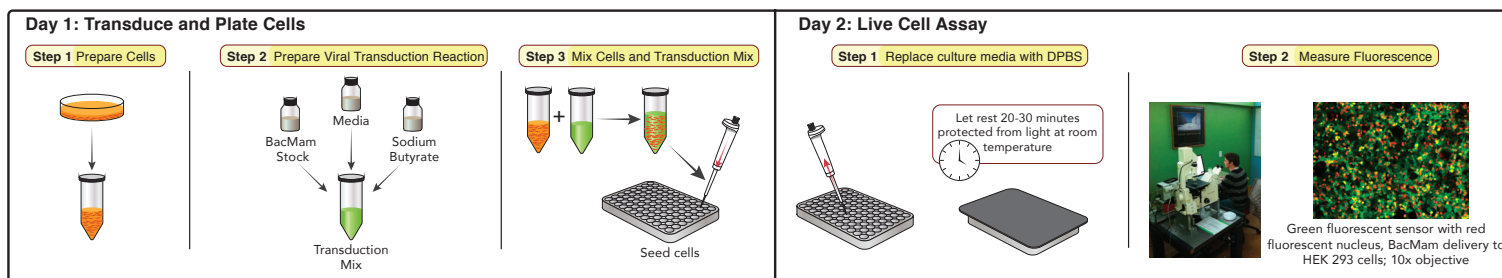
Red fluorescent DAG sensor multiplexed with cADDIs, a green fluorescent cAMP sensor, indicates Gs & Gq signaling via a calcitonin receptor

Robust Gi Assay



cADDIs in live HEK293 cells stimulated with quinpirole, a selective agonist of dopaminergic D2 receptors.

Easy assay steps - No cell lysis



References:

- GLP-1 stimulates insulin secretion by PKC-dependent TRPM4 and TRPM5 activation. *J Clin Invest*. 2015.
- Does PKC activation increase the homologous desensitization of μ opioid receptors? *Br J Pharmacy*. 2015.
- PKC-dependent Phosphorylation of the H1 Histamine Receptor Modulates TRPC6 Activity. *Cells*. 2014.
- New DAG and cAMP Sensors Optimized for Live-Cell Assays in Automated Laboratories. *J Biomol Screen*. 2015.
- A multiplexed fluorescent assay for independent second-messenger systems: decoding GPCR activation in living cells. *J Biomol Screen*. 2013.
- Simultaneous Detection of Ca^{2+} and Diacylglycerol Signaling in Living Cells. *PLoS ONE*. 2012.
- Cilia Have High cAMP Levels That Are Inhibited by Sonic Hedgehog Regulated Calcium Dynamics. *PNAS* 2016. In press.