Here, we introduce an improved fluorescent cAMP indicator, cADDis, capable of detecting dynamic changes in cAMP concentration in living cells. We have applied cADDis to use in a novel Gi assay that, for the first time, directly reports Gi mediated reductions in cAMP concentration, across a variety of receptors, on standard automated fluorescence plate readers.

**cADDis cAMP Indicator**
- Genetically encoded, single fluorescence emission
- Packaged in a variety of viral vectors for use in any cell type
- Decrease in fluorescence signal upon binding cAMP
- Easy to use on standard fluorescence microscopes and automated fluorescence plate readers

**Real-Time cAMP Detection**
- Simple, No cell lysis, No FRET, Fully reversible
- Real-time detection of dynamic cAMP levels
- All data obtained on Biotek Synergy MX plate reader

**First ever direct readout of Gi mediated reductions in cAMP**
- Tuned expression of constitutively active Gs raises basal levels of cAMP without saturating cADDis2
- No pre-treatment with Gs agonists, Forskolin, or IBMX
- Reveal the activity of Phosphodiesterases

**A New Way to Detect Gi Signaling**

- **Gi activation: Quinpirole**
- **Gs activation: Isoproterenol (1 nM)**

**Direct, Real-Time Gi Detection**

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