# FRET-CAL SCREENING PLATFORM FOR MEMBRANE SIGNALING PROTEIN MODULATORS

Tech ID: 34058 / UC Case 2025-142-0

## PATENT STATUS

Patent Pending

## BRIEF DESCRIPTION

This invention developed by UC Berkeley researchers provides a novel FRET-Cal Screening Platform to identify positive and negative modulators of membrane signaling proteins. The platform addresses the need for efficient and reliable methods to screen for compounds that can control the activity of these receptors. The technology utilizes a receptor protein with a Förster resonance energy transfer (FRET) pair, composed of a donor and acceptor fluorophore, to screen for candidate compounds. The FRET pair allows for the direct measurement of changes in protein conformation upon binding, providing a highly sensitive and specific method for identifying potential modulators. This platform offers a significant advantage over traditional screening methods by providing a high-throughput, real-time assay for drug discovery and therapeutic development.

## SUGGESTED USES

● Screening for and identifying new drug leads for various diseases by targeting membrane signaling proteins.

● Developing personalized medicine by identifying compounds that modulate specific receptor proteins.

● Studying the function and activity of membrane signaling proteins and their associated signaling pathways.

● Creating high-throughput screening assays for pharmaceutical and biotechnology companies.

## ADVANTAGES

● Provides a highly sensitive and specific method for identifying positive or negative modulators of receptor proteins.

● Utilizes a FRET pair to allow for real-time monitoring of protein-ligand interactions.

● Can be used in high-throughput screening assays, making it efficient for drug discovery.

● Offers a platform for identifying modulators that control receptor activity, which is crucial for therapeutic development.

## CONTACT

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## INVENTORS

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## OTHER INFORMATION

### CATEGORIZED AS

» **Biotechnology**
» Health
» **Medical**
» Research Tools
» Screening
» **Research Tools**
» Protein Synthesis
» Screening Assays
» **Sensors & Instrumentation**
» Biosensors

### RELATED CASES

2025-142-0

## RELATED MATERIALS

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