

## EVALUATE GLUCOSE METABOLISM TARGETED THERAPEUTICS

GLP Cell Lines & Ready-to-Use Assays from Characterization through QC Lot Release

### GLUCOSE-LIKE PEPTIDE (GLP) RECEPTOR PRODUCTS FOR THERAPEUTIC DEVELOPMENT, POTENCY TESTING, AND LOT RELEASE PROGRAMS

Therapeutics are being developed globally to address the rising burden of obesity and glucose metabolism as type 2 diabetes continues as a serious public health concern. Despite the various treatment options, a control on glycemic level has been challenging in clinical practice without having side effects like hypoglycemic episodes. Development of recombinant human proteins and GLP receptor agonists have provided hope for successful management of diabetes and body weight. The GLP-1 receptor (GLP-1R) agonists are popular therapeutic options because they effectively lower blood sugar and weight with a low risk of hypoglycemia.

To evaluate the true mechanism-of-action of the GLP receptor targeted therapeutics, Eurofins DiscoverX provides cell lines and ready to-use assay kits including bioassays qualified with a marketed innovator drug that reduces assay development timelines by at least 6-9 months.

### GLP RECEPTOR PRODUCT TYPES FOR DIFFERENT GPCR MODALITIES

	β-Arrestin Recruitment	cAMP Accumulation	Calcium Flux	Receptor Internalization	Radioligand Binding
<b>Cell Line</b>	GLP-1R, GLP-2R	GLP-1R, GLP-2R	GLP-1R, GLP-2R	GLP-1R, GLP-2R	
<b>Assay Ready Cells</b>		GLP-1R, GLP-2R	GLP-1R, GLP-2R	GLP-1R	
<b>Membrane Prep</b>					GLP-1R
<b>eXpress Kit</b>	GLP-1R, GLP-2R	GLP-1R, GLP-2R			
<b>Bioassay Kit</b>	GLP-1R, GLP-2R	GLP-1R			
	β-Arrestin Recruitment		cAMP Accumulation		
<b>Bioassay Kits Qualification</b>	Qualified with Exendin-4, GLP-1 (7-37), GLP-2, or Teduglutide ( <b>Coming Soon</b> )		Qualified with Victoza®, Byetta®, or Semaglutide ( <b>NEW</b> )		

### ADVANTAGES OF READY-TO-USE BIOASSAY KITS

- **Robust** – Reproducible fit-for-purpose kits for potency testing and lot release programs
- **Optimized** – Developed following systematic qualification studies to meet regulatory expectations for precision, linearity, range, specificity, robustness, and stability-indicating properties
- **Qualified** – Bioassays qualified with originator drug offered as ready-to-use kits
- **Assay Ready** – Ready-to-use, complete kits including reagents and a simple protocol to run the assays
- **Cell Banks** – Optional analytical cell banking for long term assay reproducibility and supply assurance

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## ROBUST, READY-TO-USE BIOASSAYS TO EVALUATE THERAPEUTICS THAT BIND TO GLP RECEPTORS

### GPCR ASSAY PRINCIPLES

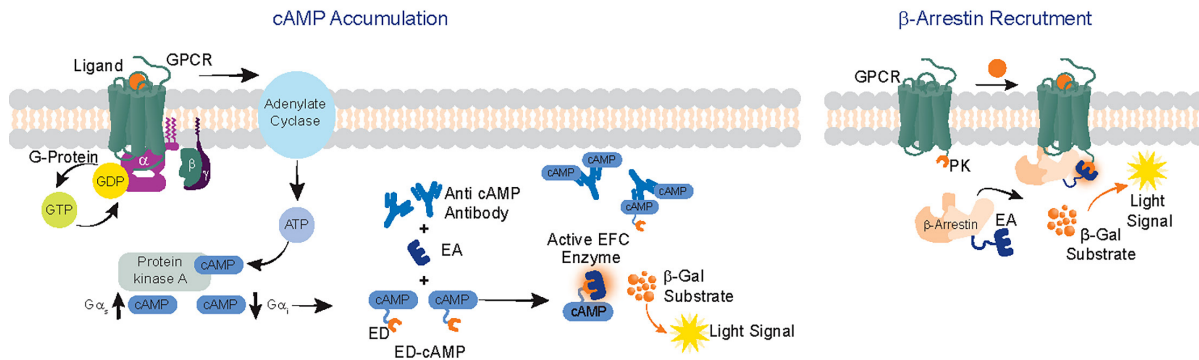


FIGURE 1. GPCR cAMP ACCUMULATION AND  $\beta$ -ARRESTIN RECRUITMENT ASSAY PRINCIPLES. ADDITIONAL ASSAY PRINCIPLES ARE AVAILABLE ON [DISCOVERX.COM/GPCRS](https://discoverx.com/gpcrs).

### QUALIFIED BIOASSAY EXHIBITING EXCELLENT REPEATABILITY

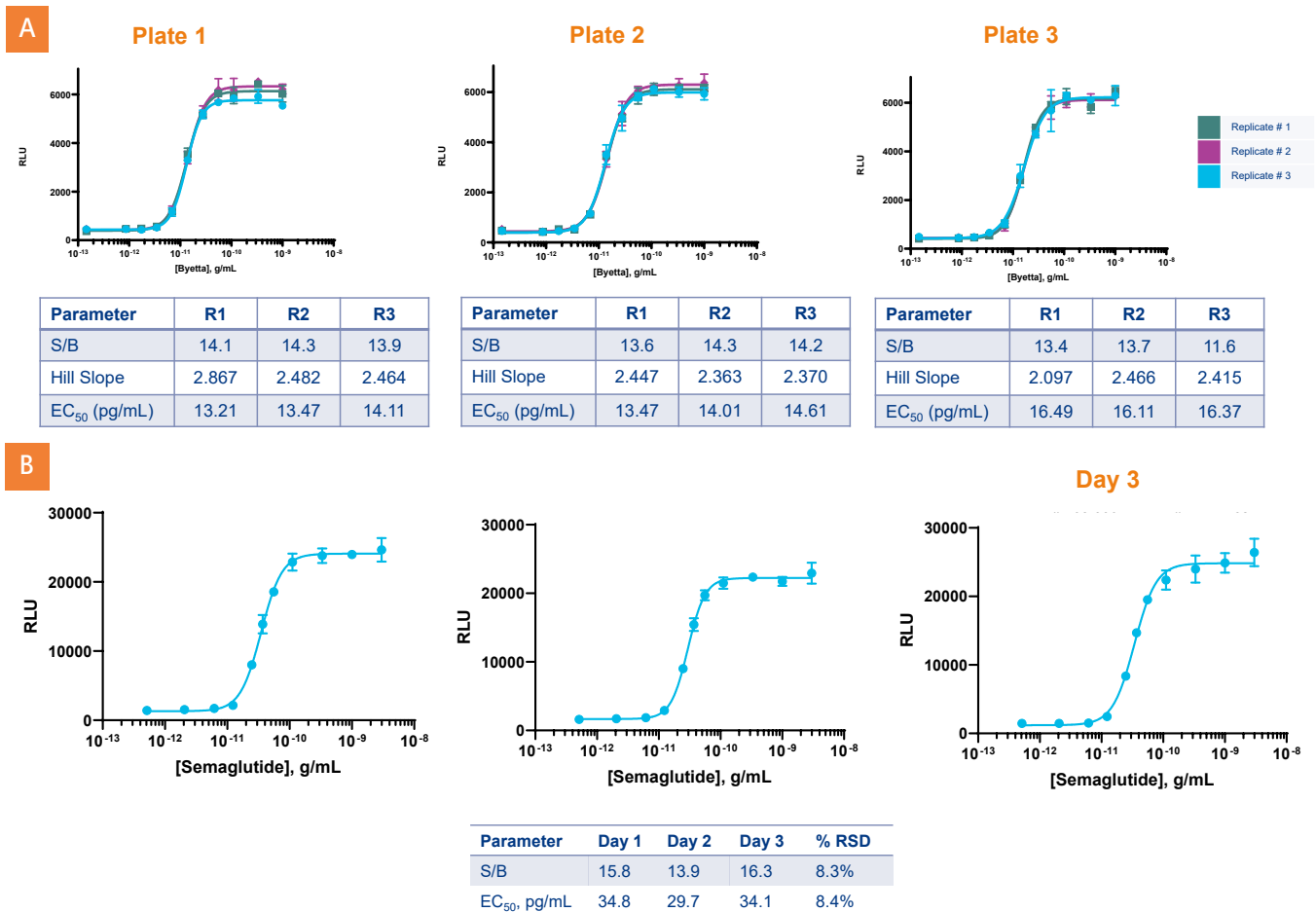


FIGURE 2. BIOASSAY QUALIFICATION DATA SHOWING EXCELLENT REPEATABILITY. **A.** EXENATIDE BIOASSAY KIT QUALIFICATION WITH BYETTA®. DATA SHOWN FOR A SINGLE ANALYST PERFORMING 3 RUNS WITH TRIPPLICATES PER PLATE. **B.** ASSESSMENT OF SEMAGLUTIDE BIOASSAY REPRODUCIBILITY OVER 3 DAYS FOR 2 DIFFERENT BIOASSAY BATCHES BY A SINGLE ANALYST. ASSAY ROBUSTNESS METRICS, BASED ON EC<sub>50</sub>, AS DESCRIBED IN THE TABLE ABOVE SHOW EXCELLENT INTRA-DAY AND INTER-PLATE PRECISION FOR EXENATIDE; AND GREAT INTER-DAY PRECISION FOR SEMAGLUTIDE.

For more information on GLP cell lines and assays, please visit [discoverx.com/gpcrs](https://discoverx.com/gpcrs)