

## ChemiBrite™ HEK 293 ChemBrite GLP1R Second Messenger Cell Line

**Catalog Number:** HTS163L

**Lot Number:** See Vial

**Contents:** 2 Vials, 2 x 10<sup>6</sup> cells per vial in 1 mL

### Background

Glucagon-like peptide-I (GLP-1), a member of the glucagon-secretin peptide family, is secreted from L-cells of the small intestine and binds to a class B (class 2) G protein-coupled receptor. The GLP-1 receptor is expressed in pancreatic beta cells and upon binding to GLP-1, it couples to Gs to increase cAMP levels and insulin secretion. In addition, GLP-1 has been shown to delay gastric emptying and regulate appetite. Therefore, the GLP-1 receptor represents an important therapeutic target for type II diabetes. In addition, the degradation-resistant analog of GLP-1, exanatide, is used clinically in combination with other glucose-lowering drugs to control type II diabetes.

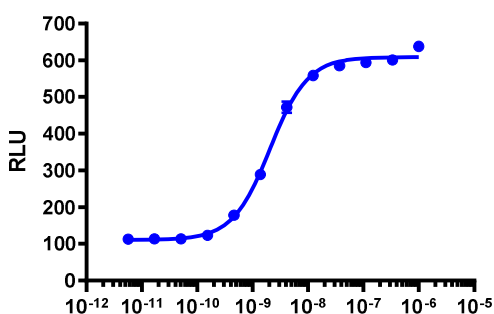
Cloned human GLP-1-expressing cell line is made in the HEK 293 ChemBrite host, which supports high levels of recombinant GLP-1 expression on the cell surface and contains optimized levels of a promiscuous G protein to couple the receptor to the calcium signaling pathway. Thus, the cell line is an ideal tool for screening for agonists, antagonists, and modulators at GLP-1.

### Product Information

<b>Target GPCR:</b>	GLP1R	<b>Common Name:</b>	GLP-1
<b>Description:</b>	Glucagon-like peptide receptor 1		
<b>Receptor Family:</b>	Glucagon		
<b>Coupling:</b>	Natural, Promiscuous G-Protein		
<b>Accession Number:</b>	NM_002062.3		
<b>GPCR Species:</b>	Human		
<b>Cell Type:</b>	HEK 293 ChemBrite		
<b>Storage:</b>	Short term (<24 h): Store at -80°C; Long term (>24 h): Store in vapor phase of liquid nitrogen.		

### Functional Performance

Representative data for activation of GLP-1 receptor. Calcium flux in GLP-1–expressing HEK 293 ChemBrite cell line induced by GLP-1 (7-36). GLP-1–expressing HEK 293 ChemBrite cells were loaded with a calcium dye, and calcium flux in response to GLP-1 (7-36), 4-fold serial dilution with each concentration performed in duplicate, was determined on a



<b>Cell Number/Well:</b>	5000
<b>Control Agonist:</b>	GLP-1 (7-36)
<b>Signal Read Time (@ 2 second intervals):</b>	2 Minutes
<b>EC<sub>50</sub> for Agonist Stimulation (nM):</b>	2.1
<b>Signal:Background at Agonist E<sub>max</sub>:</b>	3.0

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### Passage Stability

This cell line has been confirmed to be stable through a minimum of 10 passages with no significant drop in assay window or change in EC<sub>50</sub>.

### Mycoplasma Testing

This lot was tested and found to be free of mycoplasma contamination. Data available upon request.

### Required Materials

The following additional materials are required but not provided:

Product Use	Product Description	Catalog Number
Detection Reagent	Refer to User Manual	N/A
Cell Culture	Refer to User Manual	N/A
Cell Plating	Refer to User Manual	N/A
Cell Detachment	Refer to User Manual	N/A
Cell Thawing	Refer to User Manual	N/A
Cell Freezing	Refer to User Manual	N/A

### Required Antibiotics

Antibiotic Name	Concentration (µg/mL)	Catalog Number
AssayComplete™ Puromycin	1	92-0028
AssayComplete™ Hygromycin B	100	92-0029
AssayComplete™ G418	200	92-0030

### Additional Ligand Information

**Control Agonist:** GLP-1 (7-36)

**Vendor:** Eurofins DiscoverX® (Catalog No. 92-1263)

**Ordering:** +1.510.979.1415 option 4 or e-mail [CustomerServiceDRX@eurofins.com](mailto:CustomerServiceDRX@eurofins.com)

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**General product information:** [www.discoverx.com](http://www.discoverx.com)

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