

PathHunter® eXpress MTNR1B CHO-K1 β -Arrestin GPCR Assay

Catalog Number: 93-0630E2

Lot Number: See Vial

Contents: 1 x 10⁶ cells per vial in 0.1 mL

Background

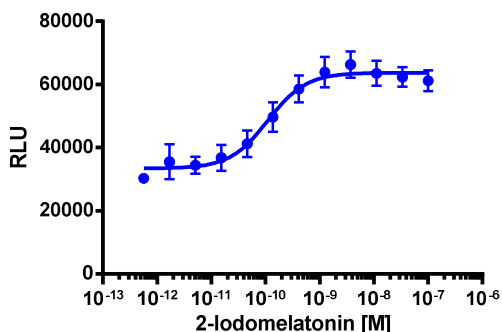
PathHunter eXpress β -Arrestin GPCR cells are engineered to co-express the ProLink™ (PK) tagged GPCR and the Enzyme Acceptor (EA) tagged β -Arrestin. Activation of the GPCR-PK induces β -Arrestin-EA recruitment, forcing complementation of the two β -galactosidase enzyme fragments (EA and PK). The resulting functional enzyme hydrolyzes substrate to generate a chemiluminescent signal. These cells have been modified to prevent long term propagation and expansion using a proprietary compound that has no apparent effect on assay performance.

Product Information

Target GPCR:	MTNR1B
Description:	Melatonin receptor 1B
Receptor Family:	Melatonin
Coupling:	Gi/Go
Accession Number:	NM_005959.3
GPCR Species:	Human
β-Arrestin Isoform:	β -Arrestin-2
ProLink™ Tag:	ARMS2-PK2
Cell Type:	CHO-K1
Storage:	Short term (<24 h): Store at -80°C; Long term (>24 h): Store in vapor phase of liquid nitrogen.

Functional Performance

Cells were plated in a 96-well plate and stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected according to the recommended protocol. Please refer below for information on control compounds.



Cell Number/Well:	10000
Control Agonist:	2-Iodometatonin
Cell Plating Reagent:	AssayComplete™ Cell Plating 0 Reagent
Cell Incubation Time (Hours):	24
Agonist Incubation Time (Minutes):	90
Agonist Incubation Temperature (°C):	37
EC₅₀ for Agonist Stimulation (nM):	0.11
Signal:Background at Agonist E_{max}:	2

Additional Ligand Information

Control Agonist: 2-Iodomelatonin

Vendor: Eurofins DiscoverX® (Catalog No. 92-1047)

Additional ProLink™ Tag Description

PK2 is a slight variant of PK1 and has been shown to enhance EFC. ARMS (Arrestin Recruitment Modulating Sequence) is an 18-21 amino acid spacer between the GPCR and the PK tag and has been shown to enhance β -Arrestin recruitment.

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