

PathHunter® U2OS PRLR-JAK2 Functional Assay

Catalog Number: 93-0687C3 **Lot Number:** See Vial
Contents: 2 vials, 4 x 10⁶ cells per vial in 1 mL

Background

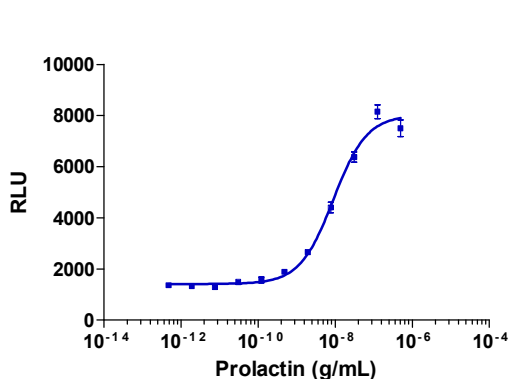
PathHunter Cytosolic Tyrosine Kinase (CTK) Functional cell lines are engineered to co-express a ProLink™ (PK) tagged Cytokine receptor, an untagged CTK, and an Enzyme Acceptor (EA) tagged SH2 domain. Activation of the Receptor-PK induces phosphorylation of the receptor by the CTK. This leads to SH2-EA recruitment, forcing complementation of the two β-galactosidase enzyme fragments (EA and PK). The resulting functional enzyme hydrolyzes substrate to generate a chemiluminescent signal.

Product Information

Cytokine Receptor:	PRLR	Target CTK:	JAK2
Accession #:	NM_000949	CTK Accession #:	BC039695
Receptor Description:	Prolactin receptor	CTK Description:	Janus kinase 2
Receptor Species:	Human	CTK Species:	Human
SH2 Domain:	PLCG2		
Cell Type:	U2OS		
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 384-well plate and incubated overnight at 37°C and 5% CO₂ to allow the cells to attach and grow. Cells were then stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected using the PathHunter Detection Kit according to the recommended protocol. Please refer to page 2 for recommended assay reagents, detection reagents, and control compounds.



Cell Number/Well:	10000
Control Agonist:	Prolactin
Ligand Incubation Time (minutes):	180
Ligand Incubation Temperature (°C):	RT
EC₅₀ for SH2 recruitment (ng/mL):	9.0
Signal:Background at agonist E_{max}:	6.6

Passage Stability

This cell line has been confirmed to be stable through 10 passages with no significant drop in assay window or change in EC₅₀.

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	PathHunter® Detection Kit	93-0001
Cell Culture	AssayComplete™ Cell Culture Kit-103	92-3103G
Cell Plating	AssayComplete™ Cell Plating 0 Reagent	93-0563R0A
Cell Detachment	AssayComplete™ Cell Detachment Reagent	92-0009
Cell Thawing	AssayComplete™ Thawing Reagent T3	92-4103TR
Cell Freezing	AssayComplete™ Freezing Reagent F3	92-5103FR

*Please inquire about our cell line-specific AssayComplete Starter Packs to get you started with your cell culture needs.

Required Antibiotics

Antibiotic Name	Concentration (µg/mL)	Catalog Number
AssayComplete™ Puromycin	0.25	92-0028
AssayComplete™ Hygromycin B	250	92-0029
AssayComplete™ G418	500	92-0030

Additional Ligand Information

Control Agonist: Prolactin

Vendor: DiscoverX® (Catalog No. 92-1144)

For order placement or technical support, please call 1.866.448.4864 (North America) or +44.121.260.6142 (Europe) or e-mail info@discoverx.com. For additional information, please visit discoverx.com.

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