

## PathHunter® U2OS GHR-JAK2 Functional Assay

**Catalog Number:** 93-0829C3 **Lot Number:** See Vial  
**Contents:** 2 vials, 4 x 10<sup>6</sup> cells per vial in 1 mL

### Background

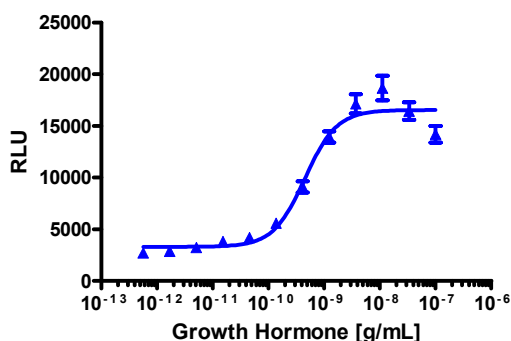
PathHunter Cytosolic Tyrosine Kinase (CTK) Functional cell lines are engineered to co-express a ProLink™ (PK) tagged Cytokine receptor, an untagged CTK, and an Enzyme Acceptor (EA) tagged SH2 domain. Activation of the Receptor-PK induces phosphorylation of the receptor by the CTK. This leads to SH2-EA 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

<b>Cytokine Receptor:</b>	GHR	<b>Target CTK:</b>	JAK2
<b>Accession #:</b>	NM_000163.2	<b>CTK Accession #:</b>	BC039695
<b>Receptor Description:</b>	Growth hormone receptor	<b>CTK Description:</b>	Janus kinase 2
<b>Receptor Species:</b>	Human	<b>CTK Species:</b>	Human
<b>SH2 Domain:</b>	PLCG1		
<b>Cell Type:</b>	U2OS		
<b>Storage:</b>	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% CO<sub>2</sub> 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.



<b>Cell Number/Well:</b>	10000
<b>Control Agonist:</b>	hGH
<b>Ligand Incubation Time (minutes):</b>	180
<b>Ligand Incubation Temperature (°C):</b>	RT
<b>EC<sub>50</sub> for SH2 recruitment (ng/mL):</b>	0.45
<b>Signal:Background at agonist E<sub>max</sub>:</b>	6.1

### Passage Stability

This cell line has been confirmed to be stable through 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	PathHunter® Detection Kit	93-0001
Cell Culture	AssayComplete™ Cell Culture Kit-103	92-3103G
Cell Plating	AssayComplete™ Cell Plating 14 Reagent	93-0563R14A
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:** hGH

**Vendor:** DiscoverX® (Catalog No. 92-1338)

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](mailto:info@discoverx.com). For additional information, please visit [discoverx.com](http://discoverx.com).

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