

PathHunter[®] eXpress GHR-JAK2 Functional Assay

Catalog Number: 93-0829E3

Lot Number:

See Vial

Contents: 1 x 10⁶ cells per vial in 0.1 mL

Background

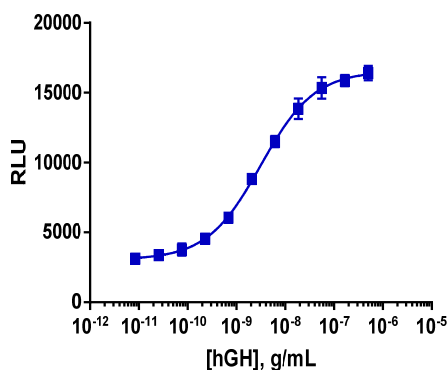
PathHunter CTK Functional cell lines are engineered to co-express a ProLink™ (PK) tagged Cytokine receptor, an untagged CTK, and an Enzyme Acceptor (EA) tagged SH2 domain. Activation of the Receptor-PK induces phosphorylation of the receptor by the CTK. This leads to SH2-EA recruitment, forcing complementation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

CTK Receptor:	GHR	Target CTK:	JAK2
Accession #:	NM_000163.2	CTK Accession #:	BC039695
Receptor Description:	Growth hormone receptor	CTK Description:	Janus kinase 2
Receptor Species:	Human	CTK Species:	Human
SH2 Domain:	PLCG1		
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 96-well plate and incubated for 24 hours at 37°C and 5% CO₂. Cells were then stimulated with a control agonist, using the assay conditions described below. Following stimulation, signal was detected using the PathHunter Detection Reagents provided in the kit according to the recommended protocol. For a detailed protocol, please refer to the user manual.



Control Agonist:	Recombinant Human Growth Hormone
Cell Plating Reagent:	AssayComplete™ Cell Plating 14 Reagent
Ligand Incubation Time (minutes):	180
Ligand Incubation Temperature (°C):	RT
EC₅₀ for SH2 recruitment (ng/mL):	1.8
Signal:Background at agonist E_{max}:	5

Additional Information

Control Agonist: Recombinant Human Growth Hormone

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

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