

PathHunter[®] eXpress EpoR-JAK2 Functional Assay

Catalog Number: 93-0900E3

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: EpoR

Target CTK: JAK2

Accession #: NM_000121.3

CTK Accession #: BC039695

Receptor Description: Erythropoietin receptor

CTK Description: Janus kinase 2

Receptor Species: Human

CTK Species: Human

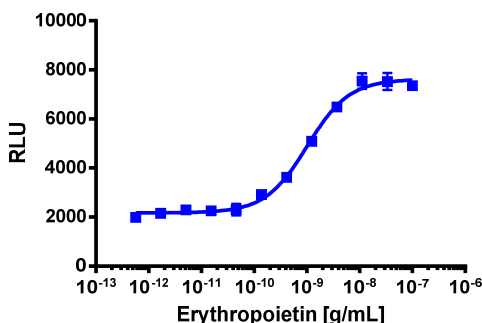
SH2 Domain: PLCG2

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 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:

Erythropoietin

Cell Plating Reagent:

AssayComplete™ Cell Plating 16 Reagent

Ligand Incubation Time (minutes):

180

Ligand Incubation Temperature (°C):

RT

EC₅₀ for SH2 recruitment (ng/mL):

1.0

Signal:Background at agonist E_{max}:

3.7

Additional Information

Control Agonist: Erythropoietin

Vendor: Eurofins DiscoverX® (Catalog No. 92-1224)

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