

PathHunter® IL-3 Signaling Reporter Cell Line (U937)

Catalog Number: 93-1181C054

Lot Number: See Vial

Contents: 3 x 10⁶ cells per vial in 1 mL

Background

PathHunter Pathway Reporter cell lines are engineered to express an Enzyme Donor (ED) tagged reporter protein controlled by a pathway-inducible transcriptional response element. Pathway activation via endogenous or exogenous target results in induced expressions of the ED-tagged protein. Addition of exogenous Enzyme Acceptor (EA), and buffer, lyses the cell and forces complementation of the ED and EA enzyme fragments. This results in the formation of a functional enzyme that hydrolyzes substrate to generate a chemiluminescent signal.

Product Information

Target Receptor	IL3RA	Co-Receptor	CD131
Target Accession #	NM_002183.2	Accession #	NM_000395.2
Description:	Interleukin 3 receptor alpha	Description:	Colony Stimulating Factor 2 Receptor, Beta

Target Species: Human

Response Element STAT5

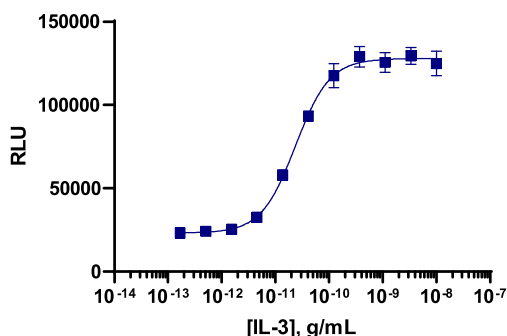
Reporter ED Tag: ePL

Cell Type: U937

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 at 37°C and 5% CO₂ to allow the cells to attach and grow. Cells were then stimulated with a control compound, 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
Cell Seeding Time (hours):	0
Control Agonist:	IL-3
Ligand Incubation Time (minutes):	960
Ligand Incubation Temperature (°C):	37
EC₅₀ for compound stimulation ng/mL	0.024
Signal:Background at agonist E_{max}:	5.3
Detection Incubation Time (hrs.)	1

Passage Stability

This cell line has been confirmed to be stable through a minimum of 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 [®] ProLabel [®] /ProLink [™] Detection Kit	93-0812
Cell Culture	AssayComplete [™] Cell Culture Kit-101	92-3101G
Cell Plating	AssayComplete [™] Cell Plating 0 Reagent	93-0563R0A
Cell Detachment	Not Applicable	Not Applicable
Cell Thawing	AssayComplete [™] Thawing Reagent T6	92-4106TR
Cell Freezing	AssayComplete [™] Freezing Reagent F5	92-5105FR

*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	Not Applicable	Not Applicable
AssayComplete [™] Hygromycin B	250	92-0029
AssayComplete [™] G418	500	92-0030
AssayComplete [™] Blasticidin	Not Applicable	R21001 (Invitrogen)

Additional Ligand Information

Control Agonist: IL-3

Vendor: Eurofins DiscoverX[®] (Catalog No. 92-1250)

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