PathHunter® DLD1 IL7R/CRLF2 Dimerization Cell Line

Catalog Number: **93-1019C13** **Lot Number:** See Vial

Contents: 2 vials, 1 x 10^6 cells per vial in 1 mL

Background

The PathHunter® Dimerization assay detects ligand induced dimerization of two subunits of a receptor-dimer pair. The cells have been engineered to co-express one receptor subunit fused to Enzyme Donor (ED), and a second dimer partner fused to Enzyme Acceptor (EA). Cytoplasmic tail may have been deleted from one or both receptors. Binding of an agonist to one receptor subunit induces it to interact with its dimer partner, forcing complementation of the two enzyme fragments. This results in the formation of a functional enzyme that hydrolyzes a substrate to generate a chemiluminescent signal.

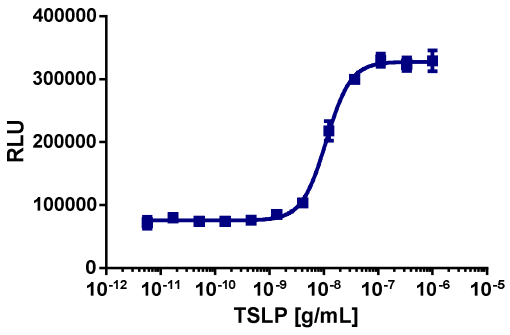
Product Information

Target Protein 1:	IL7R	**Target Protein 2:**	CRLF2
Amino Acid Range:	1 - 270	**Amino Acid Range:**	1 - 259
Accession #:	NM_002185.3	**Accession #:**	NM_022148.3
Description:	Interleukin 7 receptor	**Description:**	cytokine receptor-like factor 2

Target Tag 1:	PK1
Target Tag 2:	EA
Target Species:	Human
Cell Type:	DLD1
Storage:	Short term (<24 h): Store at -80°C; Long term (>24 h): Store in vapor phase of liquid nitrogen.

Functional Performance

Cells were seeded in a 96-well plate, incubated at 37°C / 5% CO_2 followed by stimulation with a control ligand, as defined in the assay conditions below. After stimulation, assay 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):	24
Control Compound:	TSLP
Compound Incubation Time (minutes):	360
Compound Incubation Temperature (°C):	37
EC_{50} for Compound Stimulation (ng/mL):	11.1
Signal:Background at Compound E_{max}:	4.5

16 hour incubation with ligand yields 33% larger assay window. Seed cells 4 hours prior to addition of ligand rather than 24 hours prior, as indicated in standard protocol for shorter (6hr) ligand incubation.

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_{50}.

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® Flash Detection Kit	93-0247
Cell Culture	AssayComplete™ Cell Culture Kit-101	92-3101G
Cell Plating	AssayComplete™ Cell Plating 25 Reagent	93-0563R25A
Cell Detachment	AssayComplete™ Cell Detachment Reagent	92-0009
Cell Thawing	AssayComplete™ Thawing Reagent T6	92-4106TR
Cell Freezing	AssayComplete™ Freezing Reagent F5	92-5105FR
Ligand Dilution	AssayComplete™ Protein Dilution Buffer	92-0023M

*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	800	92-0030

Additional Ligand Information

Control Compound: TSLP

Vendor: DiscoverX® (Catalog No. 92-1276)

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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