

## PathHunter® U2OS TGFBR1/ACVR2 Dimerization Cell Line

**Catalog Number:** 93-1012C3

**Lot Number:** See Vial

**Contents:** 1 x 10<sup>6</sup> 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:** TGFBR1

**Target Protein 2:** ACVR2

**Amino Acid Range:** 1 - 158

**Amino Acid Range:** 1 - 172

**Accession #:** NM\_004612

**Accession #:** NM\_001616

**Description:** Transforming growth factor, beta receptor 1

**Description:** Activin A receptor, type IIA

**Target Tag 1:** PK1

**Target Tag 2:** EA

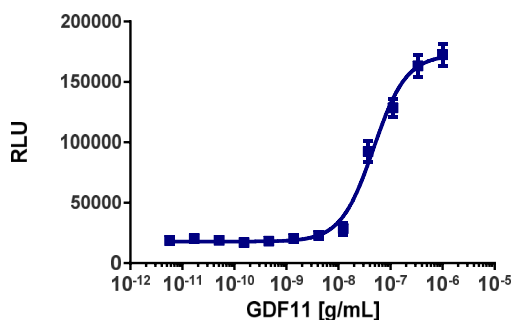
**Target Species:** Human

**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 seeded in a 96-well plate, incubated at 37°C / 5% CO<sub>2</sub> 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:** 5000

**Cell Seeding Time (Hours):** 24

**Control Compound:** GDF-11

**Compound Incubation Time (minutes):** 360

**Compound Incubation Temperature (°C):** 37

**EC<sub>50</sub> for Compound Stimulation (ng/mL):** 47.2

**Signal:Background at Compound E<sub>max</sub>:** 9.6

### 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 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 <sup>®</sup> Flash Detection Kit	93-0247
Cell Culture	AssayComplete™ Cell Culture Kit-103	92-3103G
Cell Plating	AssayComplete™ Cell Plating 5 Reagent	93-0563R5A
Cell Detachment	AssayComplete™ Cell Detachment Reagent	92-0009
Cell Thawing	AssayComplete™ Thawing Reagent T3	92-4103TR
Cell Freezing	AssayComplete™ Freezing Reagent F3	92-5103FR
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	500	92-0030

### Additional Ligand Information

**Control Compound:** GDF-11

**Vendor:** Eurofins DiscoverX<sup>®</sup> (Catalog No. 92-1268)

**Ordering:** +1.510.979.1415 option 4 or e-mail [CustomerServiceDRX@eurofins.com](mailto:CustomerServiceDRX@eurofins.com)  
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