

PathHunter® U2OS ACVR2/ACVR1 Dimerization Cell Line

Catalog Number: 93-0906C3

Lot Number: See Vial

Contents: 1 x 10⁶ 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: ACVR2

Target Protein 2: ACVR1

Amino Acid Range: 1 - 172

Amino Acid Range: 1 - 157

Accession #: NM_001616

Accession #: NM_001105

Description: Activin A receptor, type IIA

Description: activin A receptor, type I

Target Tag 1: PK1

Target Tag 2: EA

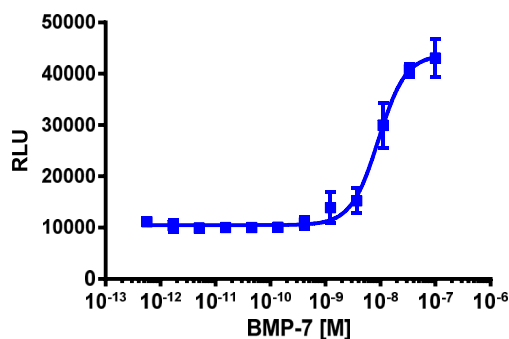
Target Species: Human

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% CO₂ 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: BMP - 7

Compound Incubation Time (minutes): 360

Compound Incubation Temperature (°C): 37

EC₅₀ for Compound Stimulation (nM): 9.2

Signal:Background at Compound E_{max}: 3.9

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 [®] 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	125	92-0029
AssayComplete™ G418	250	92-0030

Additional Ligand Information

Control Compound: BMP - 7

Vendor: Eurofins DiscoverX[®] (Catalog No. 92-1225)

Ordering: +1.510.979.1415 option 4 or e-mail CustomerServiceDRX@eurofins.com
Technical support: +1.510.979.1415 option 5 or e-mail DRX_SupportUS@eurofinsUS.com
General product information: www.discoverx.com

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