

PathHunter® eXpress BMPR1A/ACVR2 Dimerization Assay

Catalog Number: 93-1037E3

Lot Number:

See Vial

Contents: 1 x 10⁶ cells per vial in 0.1 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. 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

Target Protein 1: BMPR1A

Target Protein 2: ACVR2

Amino Acid Range: 1 - 181

Amino Acid Range: 1 - 172

Accession #: NM_004329.2

Accession #: NM_001616

Description: bone morphogenetic protein receptor, type IA

Description: Activin A receptor, type IIA

Target Tag 1: PK1

Target Tag 2: EA

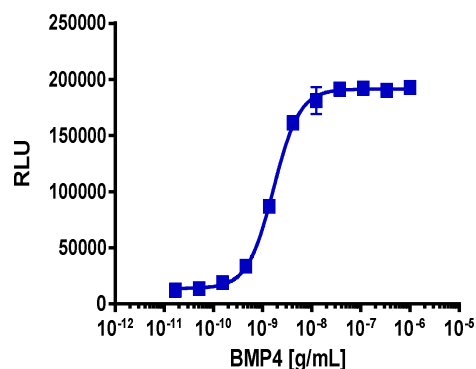
Target Species: Human

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 plated in a 96-well plate and incubated at 37°C/5% CO₂ for the Cell Seeding Time indicated below. Cells were then stimulated with a control compound 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.



Cell Number/Well: 10000

Cell Plating Reagent: AssayComplete™ Cell Plating 5 Reagent

Cell Seeding Time (Hours): 24

Control Compound: BMP-4

Compound Incubation Time (minutes): 180

Compound Incubation Temperature (°C): 37

EC₅₀ for Compound Stimulation (ng/mL): 1.66

Signal:Background at Compound E_{max}: 15.6

Additional Ligand Information

Control Compound: BMP-4

Vendor: Eurofins DiscoverX[®] (Catalog No. 92-1267)

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