

PathHunter® HEK 293 RELA-IkB Nuclear Translocation Cell Line

Catalog Number: 93-0907C1 **Lot Number:** See Vial
Contents: 2 vials, 1 x 10⁶ cells per vial in 1 mL

Background

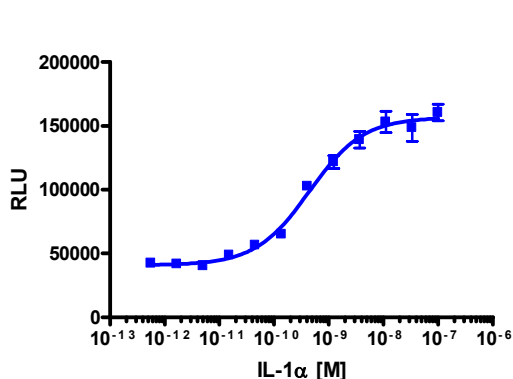
PathHunter® Nuclear Translocation cell lines are engineered to co-express two fusion proteins: a) Enzyme Donor (ED) tagged target protein; b) an Enzyme Acceptor (EA) tagged TAZ domain, derived from the CBP/P300 transcription factor, that localizes to the nucleus. Depending on the assay, activation of the signaling pathway can either a) induce translocation of the ED-tagged target protein into the nucleus, which will force complementation of the two enzyme fragments, and result in the formation of a functional enzyme that will hydrolyze substrate and generate a chemiluminescent signal; or b) induce the ED-tagged protein to vacate the nucleus, resulting in a decrease of functional enzyme and a subsequent decrease of chemiluminescent signal. Some nuclear translocation assays will also co-express an untagged secondary protein involved in the pathway of interest.

Product Information

Translocating Protein: RELA	Secondary Protein: IkB
Accession #: NM_021975	Accession #: NM_020529
Description: v-rel reticuloendotheliosis viral oncogene homolog A (avian)	Description: nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
ED Tag: PK2	
Protein Species: Human	
Cell Type: HEK 293	
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 384-well plate and incubated overnight 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:	5000
Control Compound:	IL-1α
Compound Incubation Time (minutes):	90
Compound Incubation Temperature (°C):	RT
EC₅₀ for Compound Stimulation (nM):	0.44
Signal:Background at Compound E_{max}:	3.8

Passage Stability

This cell line has been confirmed to be stable through 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® Detection Kit	93-0001
Cell Culture	AssayComplete™ Cell Culture Kit-105	92-3105G
Cell Plating	AssayComplete™ Cell Plating 0 Reagent	93-0563R0A
Cell Detachment	AssayComplete™ Cell Detachment Reagent	92-0009
Cell Thawing	AssayComplete™ Thawing Reagent T1	92-4101TR
Cell Freezing	AssayComplete™ Freezing Reagent F1	92-5101FR

*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	0.25	92-0028
AssayComplete™ Hygromycin B	200	92-0029
AssayComplete™ G418	800	92-0030

Additional Ligand Information

Control Compound: IL-1α

Vendor: DiscoverX® (Catalog No. 92-1153)

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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