eLUCidate™

Luciferase Reporter Cell Lines

Genlantis
A Division of Gene Therapy Systems, Inc.

Cat. No.	Content	Amount
EL-RIGI293T	eLUCidate™ HEK 293T, RIG-I Reporter Cell Line	2-3 x 10^6 cells in 1 ml 90% FBS, 10% DMSO

Shipping	Dry ice
Storage	Liquid nitrogen

INTRODUCTION

The eLUCidate RIG-I reporter cell line is a stably transfected HEK 293T cell line which expresses Renilla luciferase reporter gene under the transcriptional control of the NF-kB response element. As a dsRNA helicase enzyme, RIG-I is encoded by the DDX58 gene. RIG-I is one of the RIG-I-like receptors (RLRs) that are a family of DExD/H box RNA helicases including RIG-I, MDA5 and LPG2, which play a major role in pathogen sensing of RNA virus infection to initiate and modulate antiviral immunity. RLR expression is typically maintained at low levels in resting cells but is greatly increased during inflammation, specifically with IFN exposure and after virus infection. RIG-I detects cytoplasmic dsRNA generated during viral replication unlike Toll-like receptor 3 (TLR3) which can detect phagocytosed dsRNA in endosomes. RIG-I also responds to poly(I:C), the synthetic analog of viral dsRNA. The eLUCidate RIG-I reporter cell line is tested by inducing with Polyinosinic-polycytidylic acid (poly(I:C)).

MATERIALS AND METHODS

1. General Culture Conditions

Cells should be grown at 37ºC with 5% CO_2 using **Growth Medium** (DMEM plus 10% FBS and 1% Pen/Strep). Where indicated, add 3 µg/ml Puromycin and 5 µg/ml Blasticidin.

2. Thawing and Growing Cells

2.1 Aliquot 10 ml of Growth Medium to a 15 ml sterile tube.
2.2 Remove cells from storage and quickly thaw in a 37ºC water bath.
2.3 Transfer cells to the tube in 2.1.
2.4 Spin cells down at 1,000 rpm for 10 minutes.
2.5 Resuspend cells in pre-warmed Growth Medium.
2.6 Transfer cells to a T25 flask (or equivalent) and culture at 37ºC in a CO_2 incubator.
2.7 At first passage, transfer cells into Growth Medium with Puromycin and Blasticidin.
2.8 Split cells when they reach about 80-90% confluence.

RELATED PRODUCTS	Catalog #
eLUCidate™ RAW 264.7, NF-κB Reporter Cell Line	EL-NFKBRAW
eLUCidate™ RAW 264.7, IL-8 Reporter Cell Line	EL-IL8RAW
eLUCidate™ HEK 293, MIP-2 Reporter Cell Line	EL-MIP2293
eLUCidate™ RAW 264.7, MIP-2 Reporter Cell Line	EL-MIP2RAW
eLUCidate™ HEK 293, TNF-α Reporter Cell Line	EL-TNFA293
eLUCidate™ RAW 264.7, TNF-α Reporter Cell Line	EL-TNFARAW
eLUCidate™ HEK 293, TNF-β Reporter Cell Line	EL-TNFB293
eLUCidate™ RAW 264.7, TNF-β Reporter Cell Line	EL-TNFBRAW
eLUCidate™ HEK 293, GATA3 Reporter Cell Line	EL-GATA3293
eLUCidate™ HEK 293, NFAT Reporter Cell Line	EL-NFAT293
eLUCidate™ RAW 264.7, NFAT Reporter Cell Line	EL-NFATRAW
eLUCidate™ HeLa, STAT1 Reporter Cell Line	EL-STAT1HELA
eLUCidate™ RAW 264.7, STAT1 Reporter Cell Line	EL-STAT1RAW
eLUCidate™ HEK 293, STAT3 Reporter Cell Line	EL-STAT3293
eLUCidate™ RAW 264.7, INOS Reporter Cell Line	EL-INOSRAW
eLUCidate™ NIH-3T3, IL-6 Reporter Cell Line	EL-IL63T3
eLUCidate™ MCF7, Nrf2 Reporter Cell Line	EL-NRF2MCF7
eLUCidate™ HeLa, HRE Reporter Cell Line	EL-HREHELA
eLUCidate™ HEK 293, TCF/LEF Reporter Cell Line	EL-LEF293T
eLUCidate™ HEK 293, AP-1 Reporter Cell Line	EL-AP1293
eLUCidate™ HEK 293T, MDA5 Reporter Cell Line	EL-MDA5293T
eLUCidate™ HEK 293, TLR3/IFNB Reporter Cell Line	EL-IFNB293
eLUCidate™ HEK 293, TLR3/ISRE Reporter Cell Line	EL-ISRE293
eLUCidate™ HeLa, TLR4/IL-8 Reporter Cell Line	EL-IL8HELA
eLUCidate™ HEK 293, NF-κB Reporter Cell Line	EL-NFKB293
eLUCidate™ HeLa, p53 Reporter Cell Line	EL-P53HELA
eLUCidate™ HEK 293, TLR2/NF-κB Reporter Cell Line	EL-TLR2293
eLUCidate™ HEK 293, TLR3/NF-κB Reporter Cell Line	EL-TLR3293
eLUCidate™ HEK 293, TLR7/NF-κB Reporter Cell Line	EL-TLR7293
eLUCidate™ HEK 293, TLR8/NF-κB Reporter Cell Line	EL-TLR8293
eLUCidate™ HEK 293, TLR9/NF-κB Reporter Cell Line	EL-TLR9293
eLUCidate™ HEK 293, SRE Reporter Cell Line	EL-SRE293
eLUCidate™ HEK 293, SRF-RE Reporter Cell Line	EL-SRFRE293
eLUCidate™ HEK 293, CRE Reporter Cell Line	EL-CRE293

3. Cell Passaging

3.1 Detach cells using Detachin™ Cell Detachment Solution (Cat #: T100100).
3.2 Add 10 ml Growth Medium with Puromycin and Blasticidin to cells and transfer to a sterile 50 ml centrifuge tube.
3.3 Pellet cells by centrifuging at 1,000 rpm for 10 min.
3.4 Resuspend cells in Growth Medium with Puromycin and Blasticidin to achieve 1:10 or 1:20 dilution ratio, and plate as needed.

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