LEADING LIGHT® Wnt Cell Line Medium Pack

For use with the LEADING LIGHT® Wnt Reporter Cell Line

The LEADING LIGHT® Wnt Cell Line Medium Pack is intended for use with the LEADING LIGHT®Wnt Reporter Cell Line, which is the basis for a cell-based luciferase activity test suitable for a multi-well plate format, such as 96- or 384-well microplates. The system contains an engineered 3T3 mouse fibroblast cell line, which expresses the firefly luciferase reporter gene under the control of Wnt-responsive promoters (TCF/LEF). The luciferase activity from the reporter gene in this cell line can be up-regulated in a dose-dependent manner upon the addition of exogenous Wnt protein/Wnt agonist or down-regulated by a further addition of a Wnt antagonist to the cell culture medium. This system can be used to elucidate the functions/activities of different Wnt-related ligands such as Wnt, DKK, etc. This system can also be used for screening small molecules and antibodies for their ability to act as Wnt inhibitors or Wnt agonists.

The assay has been used successfully in different assay formats (including HTS applications) to identify several distinct categories of small molecule compounds that modulate the Wnt signaling pathway.

The LEADING LIGHT® Wnt Cell Line Medium Pack contains
60 mL, Cell Growth Medium Concentrate
4.5 mL, Cell Assay Medium Concentrate
10 mL, Cell Freezing Medium

Note: the complete LEADING LIGHT® Wnt Reporter Assay Starter Kit (Prod. No. ENZ-61001) is available.

Wnt ligands bind to Frizzled (Fz) and LRP5/6 receptors to trigger a signaling cascade that leads to stabilization of beta-catenin, which can enter into the nucleus to form a complex with T cell transcription factor (TCF/LEF) to activate Wnt target gene expression1. Canonical Wnt signaling is required for embryo-genesis and adult tissue maintenance and is involved in tumorigenesis and development of many human degenerative diseases. Studies relating to Wnt signaling have advanced research in molecular embryology, stem cell biology, tumorigenesis, regenerative medicine, and rational drug discovery.

Citations: 4 View Online »

- Can be used as a supplement to the Wnt LEADING LIGHT® Wnt Reporter Assay Starter Kit (Prod. No. ENZ-61001)
- When used in the Wnt LEADING LIGHT® Wnt Reporter Assay Starter Kit, there are many advantages of using this line of products:
    - True end-point detection system, high sensitivity (Wnt3a EC_{50} = 45.9 ng/ml)
    - Excellent reproducibility (Z'-factor of 0.74)
    - High signal-to-noise ratio without the need for Lithium Chloride to boost the signal
    - High-throughput screening applications (including 384-well microplates)

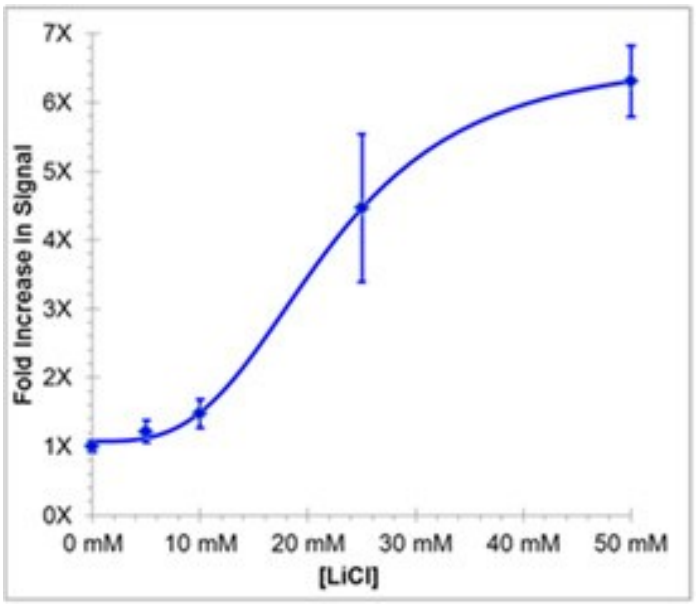
Ordering Information

Order Online »

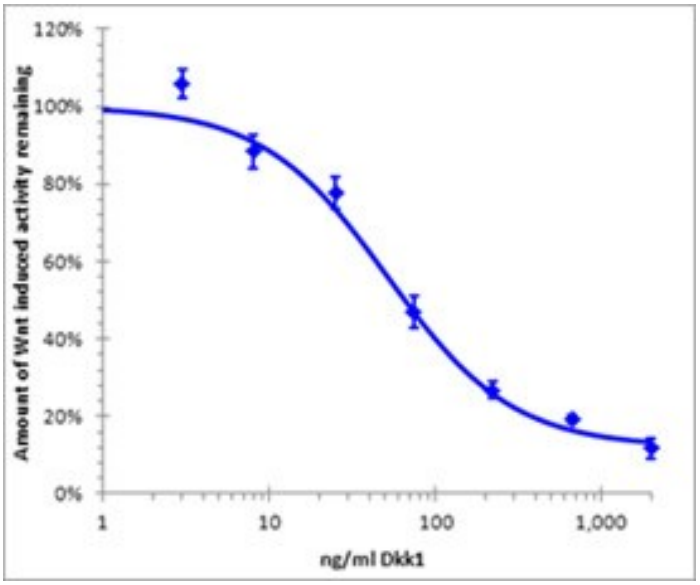
ENZ-60003-0001	1Pack

Manuals, SDS & CofA

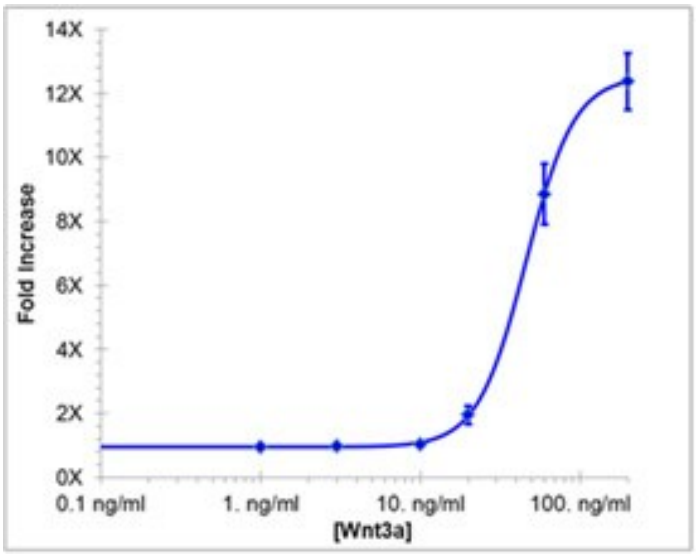
View Online »



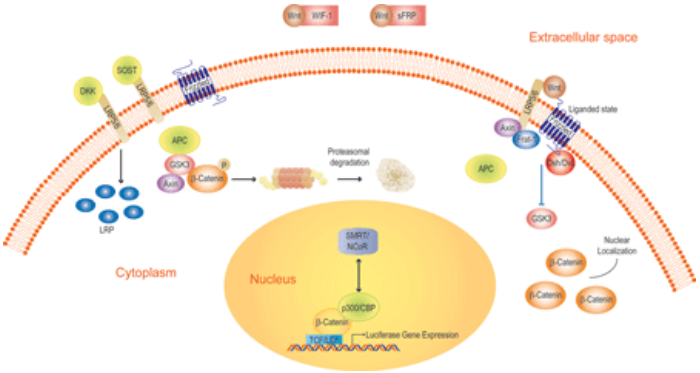
Activation of Wnt reporter gene by LiCl in the Wnt Reporter cell system. Cells were treated with the indicated doses of LiCl. After LiCl treatment, luciferase activity was measured. The chemiluminescence in the LiCl-treated cells increased in a dose-dependent fashion.



Reporter cells were treated with the indicated doses of Dkk-1 in the presence of 200 ng/mL (in-well) Wnt3a. After Dkk-1 treatment, luciferase activity in the cells was measured. Dkk-1 inhibits Wnt3a-elevated luciferase levels in a dose dependent manner.



Wnt reporter cells were treated with indicated doses of Wnt3a protein. After Wnt3a treatment, the luciferase activity assay was performed. The chemiluminescence in the Wnt3a-treated cells increased in a dose-dependent manner.



Schematic of the canonical Wnt signaling pathway and its components. Luciferase activity from the reporter gene in the LEADING LIGHT® Wnt reporter cell line can be up- or down-regulated in a dose-dependent manner upon the addition of exogenous Wnt protein/Wnt agonist or Wnt antagonist (Dkk) to the cell culture medium.

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Upon receipt, store at –80°C. When stored properly, these reagents are stable for one year from date received.
Short Term Storage	-80°C
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Last modified: May 29, 2024

ENZO LIFE SCIENCES, INC.
Phone: 800.942.0430
info-usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES (ELS) AG
Phone: +41 61 926 8989
info-eu@enzolifesciences.com

Belgium, The Netherlands & Luxembourg
Phone: +32 3 466 0420
info-be@enzolifesciences.com

France
Phone: +33 472 440 655
info-fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-de@enzolifesciences.com

UK & Ireland
Phone (UK customers): 0845 601 1488
Phone: +44 1392 825900
info-uk@enzolifesciences.com

For local distributors and detailed product information visit us online: enzo.com All product names, logos, and brands are the property of their respective owners.