BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

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NF-kB Luciferase Reporter-Jurkat Cell Line

Catalog number: RC1042

This package insert must be read in its entirety before using this product.
For research use only. Not for use in diagnostic procedures.

NF-kB Luciferase Reporter-Jurkat Cell Line

Catalog Number: RC1042, **Storage:** Immediately upon receipt, store in liquid nitrogen.

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Contents: Each vial contains 2 ~ 3 x 10^6 cells in 1 ml of 90% FBS + 10% DMSO.
Description: The NF-kB Luciferase Reporter cell line is a stably transfected Jurkat T cell line which expresses Renilla luciferase reporter gene under the transcriptional control of the NF-kB response element. NF-kB is a key transcription factor that is involved in immune and inflammatory responses, developmental processes, cellular growth and apoptosis. The NF-kB induction by phorbol 12-myristate 13-acetate (PMA) is shown in Figure 1.
Applications: Functional Assay
Application Notes: Functional Assay, detecting the transcriptional activity of NF-kB
Application Details: Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.
If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.
Some PubMed article(s) citing the expression level of this target are as follows:
Boster Bio's internal QC testing used:

Application:

Monitor the NF-kB signaling pathway activity.Screen for activators or inhibitors of the NF-kB signaling pathway.

Culture conditions:

Cells should be grown at 37°C with 5% CO2 using RPMI medium supplemented with 10% FBS, 1 mM sodium pyruvate, 10 mM HEPES and 1% Pen/Strep plus 3 µg/ml of Puromycin. It is recommended to quickly thaw the frozen cells upon receipt or from liquid nitrogen in a 37°C water-bath, transfer to a tube containing 10 ml of growth medium without Puromycin, spin down cells, resuspend cells in pre-warmed growth medium without Puromycin, transfer resuspended cells to T25 flask and culture in 37°C-CO2 incubator. Monitor the cell viability by counting cells daily for 1~3 days until cells completely recover viability as cells are doubling daily. Once cells are over 90% confluent, harvest cells by centrifugation and passage cells. At first passage, switch to growth medium containing Puromycin. Cells should be split before they reach complete confluence. To passage the cells, transfer cells to a tube, spin down cells, resuspend cells and seed appropriate aliquots of cell suspension into new culture vessels. Subcultivation ration = 1:10 to 1:20 weekly.

Functional validation:

A. Response of NF-kB – Jurkat cells to phorbol 12-myristate 13-acetate (PMA).1. Harvest NF-kB – Jurkat cells and seed cells into a white solid-bottom 96-well microplate in 100 µl of growth medium at 2.5 x 10^5 cells/well. 2. Right after plating cells, stimulate cells with various concentrations of PMA and incubate cells at 37°C in a CO2 incubator for 6-16 hours. 3. Add 50 µl of luciferase assay reagent per well. 4. Incubate at room temperature for 1-5 minutes and measure luminescence using a microplate luminometer.

NF-kB Luciferase Reporter-Jurkat Cell Line (RC1042) Images

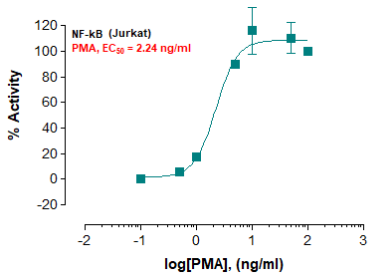

Fig-1: Induction of NF-kB activity by PMA in NF-kB Jurkat T cells.

Submit a product review to Biocompare.com

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