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

STAT5 Luciferase Reporter-Ba/F3 Cell Line

Catalog number: RC1035

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

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Catalog Number: RC1035, **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 STAT5 Luciferase Reporter cell line is a stably transfected Ba/F3 cell line which expresses Renilla luciferase reporter gene under the transcriptional control of the STAT5 responsive promoter, so that the cell line is designed to measure the transcriptional activity of STAT5. As a transcription factor, Signal Transducer and Activator of Transcription 5 (STAT5) is activated through phosphorylation at tyrosine 694 in response to many cytokines and growth factors including IL-2, IL-3, GM-CSF and prolactin. Aberrant STAT5 activity is closely related to a wide range of human cancers as STAT5 is often found to be constitutively phosphorylated in cancer cells. The phosphorylated STAT5 forms homodimers or heterodimers with other STATs, and the dimers translocate to nucleus in which DNA binding/promoter induction occurs. The STAT5 induction by IL-3 is shown in Figure 1.
Applications: Functional Assay
Application Notes: Functional Assay, detecting the transcriptional activity of STAT5
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 STAT5 signaling pathway activity.Screen for activators or inhibitors of the STAT5 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 1 ng/ml mIL-3 (Note: mIL-3 is essential for Ba/F3 cell maintenance), 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 STAT5 Ba/F3 cells to mIL-3.1. Harvest STAT5 Ba/F3 cells and seed cells into a white solid-bottom 96-well microplate in 100 μl of growth medium without IL-3 at 1 x 10^5 cells/well.

STAT5 Luciferase Reporter-Ba/F3 Cell Line (RC1035) Images

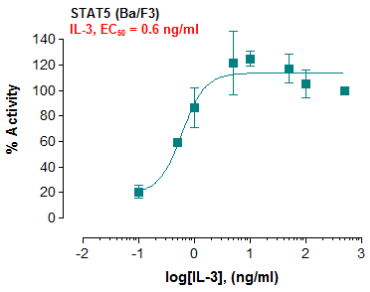

Fig-1: Induction of STAT5 activity by mIL-3 in STAT5 Ba/F3 cells.

Submit a product review to Biocompare.com

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