

CD27/NF κ B-Luc/Jurkat

CBP74007

Contents

I. Background.....	1
II. Description.....	1
III. Introduction.....	2
IV. Description of Host Cell Line.....	2
V. Representative Data.....	3



CD27/NF κ B-Luc/Jurkat CBP74007

I. Background

CD27 is a member of the tumor necrosis factor (TNF) receptor superfamily, which includes the T cell co-stimulatory receptors OX40, 4-1BB and herpesvirus entry mediator (HVEM). CD27 is expressed on various types of T cells, B cells and a subset of natural killer cells. It activates NF- κ B and MAPK/JNK signaling upon interaction with its TNF-like ligand, CD70, which is expressed by numerous tumor cells. Adaptor proteins TRAF2 and TRAF5 can also stimulate CD27 signaling. Activation of CD27 leads to lymphoid proliferation, differentiation, apoptosis, and the induction of long-term memory. The CD27/CD70 pathway is a key target for the development of treatments for cancer and inflammatory diseases.

II. Description

Recombinant Jurkat T cell expressing firefly luciferase gene under the control of NF- κ B response elements with constitutive expression of human CD27 (also known as Tumor Necrosis Factor Receptor Superfamily Member 7, TNFRSF7, and T14, Genbank Accession



#BC012160)

III. Introduction

Host Cell: Jurkat

Expressed gene: CD27-NF κ B-Luciferase

Stability: 32 passages (in-house test, that not means the cell line will be instable beyond the passages we tested.)

Synonym(s): Tumor Necrosis Factor Receptor Superfamily Member 7, TNFRSF7, T14, cd27 cell line, cd-27, nfkb, nf-kb

Freeze Medium: 90% FBS+10% DMSO

Culture Medium: RPMI-1640+10%FBS+800ug/ml hygromycin+1ug/ml puromycin

Mycoplasma Testing: Negative

Storage: Liquid nitrogen

Application(s): Functional(Report Gene) Assay

IV. Description of Host Cell Line

Organism: Homo sapiens, human

Tissue: Peripheral blood

Disease: Acute T cell leukemia

Morphology: Lymphoblast



Growth Properties: Suspension

V. Representative Data

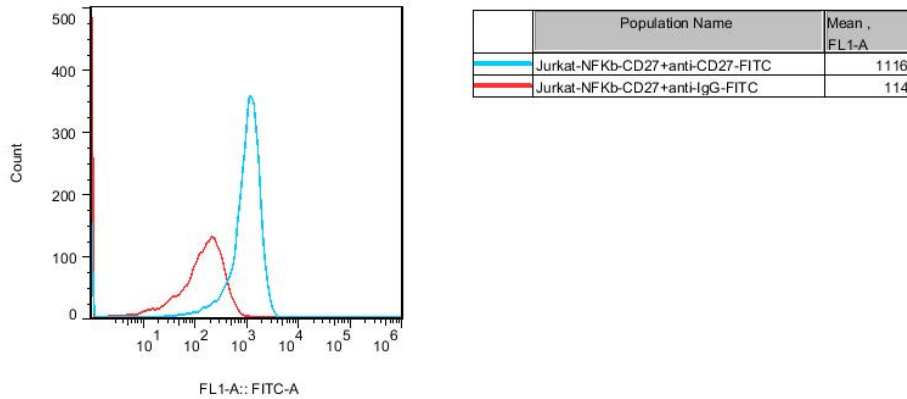


Figure 1. Recombinant Jurkat stably expressing human CD27-NFκB.

CD27/Jukart NFκB-Luc (Clone 2) report assay stimulated by CD70/CHO cells

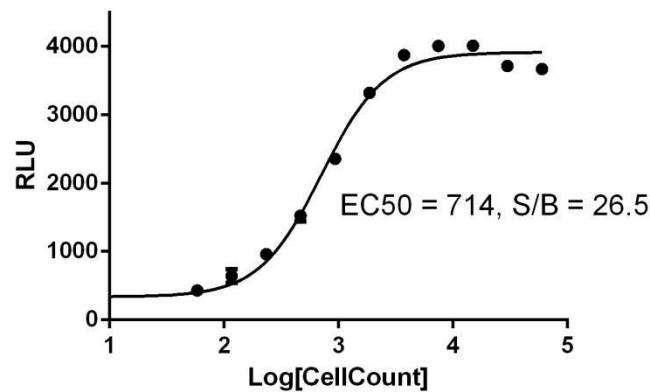


Figure 2. Detect Luciferase assay by Ultra Luciferase Detection Kit CBPH0001 (we strongly suggest to purchase from Cobioer).

Jurkat-CD27-NFκB-Luciferase Reporter cells were stimulated by CD70/CHO cells, the S/B was 26.5-fold.

