

ADCP Bioassay Effector Cell Fc γ RIIa (H variant) -NFAT/Jurkat CBP74106

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I. Background

Antibody-dependent cell-mediated phagocytosis (ADCP) is one of the important mechanisms of action for antibody drug development. Fc γ RIIa is the predominant Fc γ receptor involved in the ADCP process. Fc γ RIIa is expressed in myeloid effector cells, including macrophages and neutrophils, where it plays a role in the activation of these effector cells. Several clinical studies have studied the correlation of a Fc γ RIIa polymorphism (R131H) and the response to IgG1 subclass monoclonal antibodies (mAbs) such as rituximab. Engineered amino-acid substitutions in Fc-mAbs have been developed to enhance the mAb-mediated phagocytosis of tumor cells by macrophages.

II. Description

Recombinant Jurkat T cell expressing a firefly luciferase gene under the control of NFAT response elements with constitutive expression of human Fc γ RIIa, Histidine variant.



III. Introduction

Host Cell: Jurkat

Expressed gene: Fc γ RIIa (H variant)-NFAT

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

Freeze Medium: 90% FBS+10% DMSO

Culture Medium: RPMI-1640+10%FBS+1ug/ml puromycin+400ug/ml hygromycin

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



Dose response of Rituximab in ADCP Bioassay Effector Cell FcγRIIIa (H variant) /NFAT Reporter-Jurkat (C2)

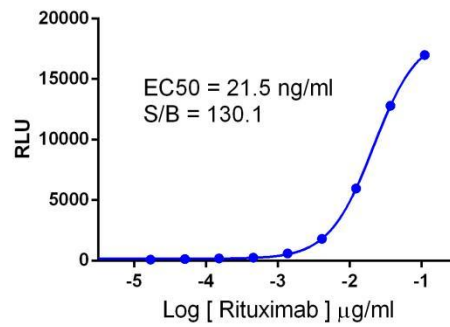


Figure 1. Dose response of Rituximab in ADCP Bioassay Effector Cell FcγRIIIa (H variant) /NFAT Reporter-Jurkat (C2) , the EC50 was 21.5ng/ml.

