

PD-1/OX40 Dual Effector Reporter Cell

CBP74163

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I. Background

The binding of Programmed Cell Death Protein 1 (PD-1), a receptor expressed on activated T cells, to its ligands, PD-L1 and PD-L2, negatively regulates immune responses. The PD-1 ligands are found on most cancers, and PD-1:PD-L1/2 interaction inhibits T cell activity and allows cancer cells to escape immune surveillance. The PD-1:PD-L1/2 pathway is also involved in regulating autoimmune responses, making these proteins promising therapeutic targets for a number of cancers, as well as multiple sclerosis, arthritis, lupus, and type I diabetes.

OX40 (CD134) is a co-stimulatory receptor expressed on the surface of CD4⁺ and CD8⁺ T cells 24 to 48 hours after activation. Binding of OX40 to its ligand, OX40L (CD252), present on dendritic cells, potentiates T cell survival and increases cytokine production. OX40 has been shown to activate NF- κ B-mediated memory cell generation through its interaction with adaptor proteins TRAF2 and TRAF5. OX40 has a critical role in the maintenance of an immune response beyond the first few days and onwards to a memory response.



II. Introduction

Expressed gene: PD-1/OX40

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+
800ug/ml hygromycin+5ug/ml blasticidin

Mycoplasma Testing: Negative

Storage: Liquid nitrogen

Application(s): Functional(Report Gene) Assay

III. Representative Data

| | Population Name | Mean . FL4-A |
|---|---|-----------------|
|  | PD-1 / OX40 Dual Effector Reporter Cell+anti-OX40 APC | 2.90E5 |
|  | Control Cell+anti-OX40 APC | 1725 |

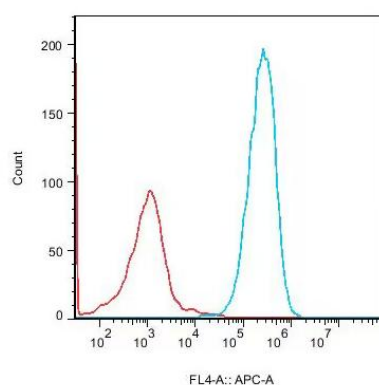


Figure 1. Recombinant PD-1/OX40 Dual Effector Reporter Cell constitutively expressing OX40.



| Population Name | Mean , FL1-A |
|--|--------------|
| PD-1 / OX40 Dual Effector Reporter Cell+anti-PD-1 FITC | 2.43E4 |
| Control Cell+anti-PD-1 FITC | 689 |

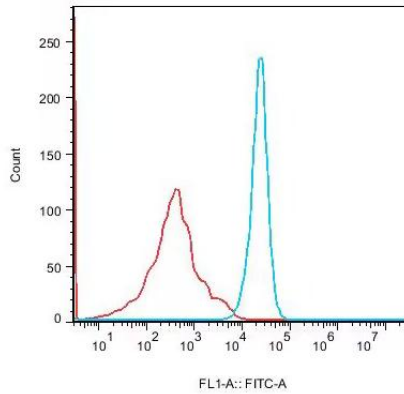


Figure 2. Recombinant PD-1/OX40 Dual Effector Reporter Cell constitutively expressing PD-1.

Dose Response of Blocking Antibodies in PD-1/OX40 Dual Effector Reporter Cells (C22) With PD-L1 aAPC Cells

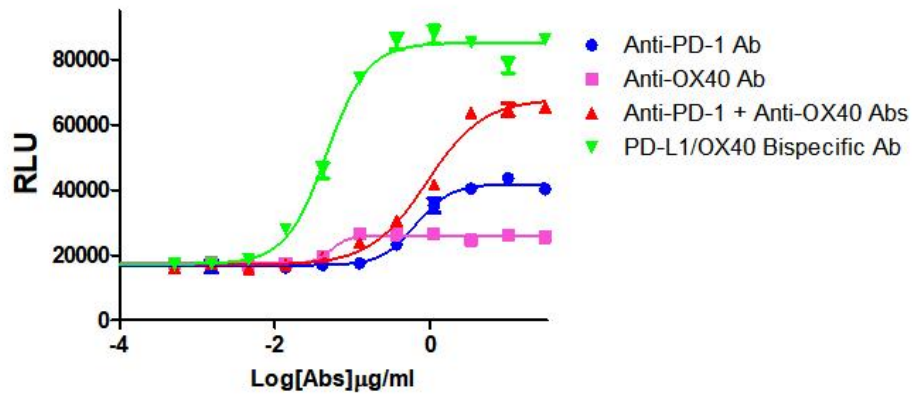


Figure 3. Dose Response of Blocking Antibodies in PD-1/OX40 Dual Effector Reporter Cells (C22) With PD-L1 aAPC Cells.

