Human Recombinant BDCA2 and FcER1G Stable Cell Line

Cat. No. M00593 **Version 04282015**

I. INTRODUCTION

Catalog Number: M00593
Cell Line Name: CHO-K1/BDCA2 and FcER1G
Gene Synonyms: human BDCA2 and FcER1G
Expressed Gene: Codon Optimized from NP_569708 and NM_004106.1; no expressed tags
Host Cell: CHO-K1
Quantity: Two vials of frozen cells (1×10^6 per vial)
Stability: 15 passages
Application: Binding assay or use as immunogen
Freeze Medium: 95% complete growth medium, 5% DMSO
Complete Growth Medium: F12K, 10% FBS
Culture Medium: F12K, 10% FBS, 8 μg/ml Puromycin
Mycoplasma Status[§]: Negative
Storage: Liquid nitrogen immediately upon receipt

II. BACKGROUND

BDCA-2 is a novel type II C-type lectin, which shows 50.7% sequence identity at the amino acid level to its putative murine ortholog, the murine dendritic cell–associated C-type lectin 2. In addition to its antigen capturing function, BDCA-2 can mediate potent inhibition of induction of IFN-α/β expression in PDCs. Production of IFN-α/β in response to several different types of viruses, bacteria, CpG-DNA, dsRNA, and SLE serum is by far the most prominent feature of PDCs.

§: GenScript employs a PCR-based method to test the mycoplasma. The test covers 11 of the most common strains of mycoplasma, (covering approximately 95% of M. fermentans, M. hyorhinis, M. arginini, M. orale, M. salivarium, M. hominis, M. pulmonis, M. arthritidis, M. neurolyticum, M. hyopneumoniae and M. capricolum) and one species Ureaplasma (U. urealyticum), with sufficient sensitivity and specificity.

III. REPRESENTATIVE DATA

- Protein Expression Validation

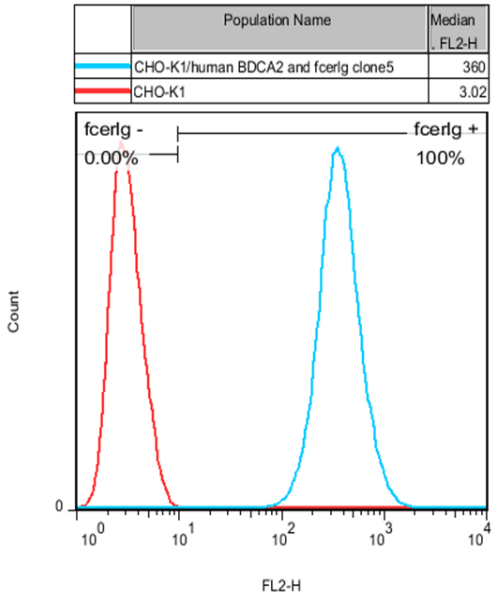

Figure 1. FACS analysis of human BDCA2 and FcER1G expression in CHO-K1 cells.

IV. THAWING AND SUBCULTURING

Thawing Protocol

1. Remove the vial from liquid nitrogen tank and thaw cells quickly in a 37°C water-bath.
2. Just before the cells are completely thawed, decontaminate the outside of the vial with 70% ethanol and transfer the cells to a 15 ml centrifuge tube containing 9 ml of complete growth medium.
3. Pellet cells by centrifugation at 200 x g force for 5 min, and remove the medium.
4. Re-suspend the cells in complete growth medium.
5. Transfer the cell suspension to a 10 cm dish with 10 ml of complete growth medium.
6. Incubate the cells at 37°C, 5 % CO_2.
7. Add antibiotic in the following day.

Sub-culturing Protocol

1. Remove the culture medium from cells.
2. Wash cells with PBS (pH=7.4) to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 ml of 0.25% (w/v) Trypsin- EDTA (GIBCO, Cat No. 25200-072) solution into 10 cm dish and observe the cells under an inverted microscope until cell layer is dispersed (usually within 3 to 5 minutes).
   Note: To avoid cells clumping, do not agitate the cells by hitting or shaking the dish while waiting for the cells to detach. If cells are difficult to detach, please place the dish in 37°C incubator for ~2 min.
4. Add 6.0 to 8.0 ml of complete growth medium into dish and aspirate cells by gently pipetting.

5. Centrifuge the cells at 200 x g force for 5 minutes, and remove the medium.
6. Re-suspend the cells in culture medium and add the cell suspension to new culture dish.
7. Incubate the cells at 37°C, 5% CO_2.

Sub-cultivation Ratio: 1:3 to 1:8 weekly.
Medium Renewal: Every 2 to 3 days

V. REFERENCES

1. Kadowaki, N., S. Antonenko, J.Y. Lau, and Y.J. Liu.Natural interferon alpha/beta-producing cells link innate and adaptive immunity [J]. J Exp. Med. 2000, 192:219–226.
2. Andrzej D., Yoshiaki S., etc. BDCA-2, a Novel Plasmacytoid Dendritic Cell–specific Type II C-type Lectin, Mediates Antigen Capture and Is a Potent Inhibitor of Interferon α/β Induction [J]. J Exp Med. 2001 194(12): 1823–1834.

GenScript USA Inc,
860 Centennial Ave.
Piscataway, NJ 08854
Toll-Free: 1-877-436-7274
Tel: 1-732-885-9188, Fax: 1-732-210-0262
Email: product@genscript.com
Web: http://www.genscript.com
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