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## **Data Sheet**

### ***CD70-CHO Recombinant Cell line***

**Cat. #: 79510**

#### **Product Description**

Recombinant CHO-K1 cells constitutively expressing human CD70 (also known as Tumor Necrosis Factor Ligand Superfamily Member 7, TNFSF7, CD27 Ligand, Ki-24 antigen, CD27-L, and CD27LG; GenBank accession #NM\_001252).

#### **Background**

CD70, also known as TNFSF7, is a cytokine which binds to CD27. CD70 is involved in T-cell activation and induces the proliferation of costimulated T-cells. Moreover, TNFSF7 enhances the generation of cytolytic T-cells. This cytokine is also reported to play a role in regulating B-cell activation, cytotoxic function of natural killer cells, and immunoglobulin synthesis. Diseases associated with CD70 include acute myocarditis, arthritis, and other inflammatory disorders.

#### **Applications**

This cell line is useful for CD70 binding assays, flow cytometry, or for screening for CD70 antibodies. Also useful for immune checkpoint co-stimulatory assay when co-cultured with CD27/NF-κB Reporter-Jurkat cell line (BPS Bioscience #79509).

#### **Format**

Each vial contains ~2 x 10<sup>6</sup> cells in 1 ml of 10% DMSO

#### **Storage**

Store in liquid nitrogen immediately upon receipt

#### **Mycoplasma Testing**

This cell line has been screened using the MycoAlert™ Mycoplasma Detection Kit (Lonza #LT07-118) to confirm the absence of Mycoplasma contamination.

#### **Culture Medium**

**Thaw Medium 3 (BPS Cat #60186):** Ham's F-12 medium (Hyclone #SH30526.01) supplemented with 10% FBS (Life technologies #26140-079), 1% Penicillin/Streptomycin (Hyclone #SV30010.01).

**Complete Growth Medium:** Thaw Medium 3 (BPS Bioscience #60186) plus 1 mg/ml of Geneticin (Life Technologies #11811031) to ensure recombinant expression.

Cells should be grown at 37°C with 5% CO<sub>2</sub> using complete growth medium.

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### Recommended Culture Condition

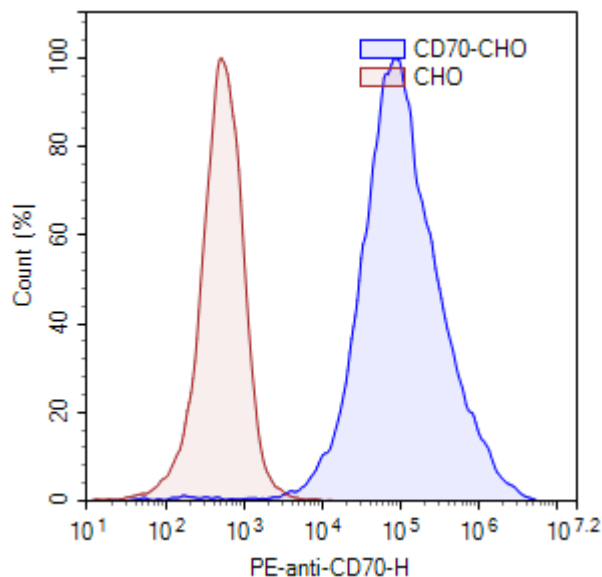
It is recommended to quickly thaw the frozen cells from liquid nitrogen in a 37°C water-bath, transfer to a tube containing 10 ml of Thaw Medium 3 (**no Geneticin**), spin down cells, re-suspend cells in pre-warmed Thaw Medium 3 (**no Geneticin**), transfer re-suspended cells to T25 flask and culture in 37°C CO<sub>2</sub> incubator overnight. The next day, replace the medium with fresh Thaw Medium 3 (**no Geneticin**), and continue growing culture in a CO<sub>2</sub> incubator at 37°C until the cells are ready to be split. Cells should be split before they reach complete confluence. At first passage switch to complete growth medium (**contains 1 mg/ml Geneticin**).

To passage the cells, rinse cells with phosphate buffered saline (PBS), detach cells from culture vessel with 0.05% Trypsin/EDTA, add complete growth medium and transfer to a tube, spin down cells, re-suspend cells and seed appropriate aliquots of cell suspension into new culture vessels.

To freeze down the cells, rinse cells with phosphate buffered saline (PBS), and detach cells from culture vessel with 0.05% Trypsin/EDTA. After detachment, add Thaw Medium 3 (**no Geneticin**) and count the cells, then transfer to a tube, spin down cells, and resuspend in Freezing Medium (10% DMSO + 90% FBS) at  $\sim 2 \times 10^6$  cells/ml. Dispense 1 ml of cell aliquots into cryogenic vials. Place vials in an insulated container for slow cooling and store at -80°C overnight. Transfer to liquid nitrogen the next day for storage. It is recommended to expand the cells and freeze down more than 10 vials of cells for future use at early passage.

### Functional Validation and Assay Performance

Expression of human CD70 in CHO-K1 cells was confirmed by FACS.



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### Sequence

Human CD70 sequence (accession number NM\_001252)

MP EEGSGCSVRRRPYGCVLRAALVPLVAGLVICLVVCIQRFAQAQQQLPLESLGWDVAELQLNHT  
GPQQDPRLYWQGGPALGRSFLHGP ELDKQLRIHRDGIYMVHIQVTLAICSSTTASRHHPTTLAV  
GICSPASRSISLLRLSFHQGCTIASQRLTPLARGDTLCTNLTGTL LPSRNTDETF FGVQWVRP

### Related Products

<b><u>Product</u></b>	<b><u>Cat. #</u></b>	<b><u>Size</u></b>
CD27, Fc fusion Protein	71176	100 µg
CD70(CD27L), His-tag Protein	71178	100 µg
CD27 CHO-K1 Stable Recombinant Cell Line	60624	2 vials
CD27/NF-κB Reporter-Jurkat Recombinant Cell Line	79510	2 vials
ONE-Step™ Luciferase Assay System	60690-1	10 ml
ONE-Step™ Luciferase Assay System	60690-2	100 ml
Thaw Medium 2	60184	100 ml
Thaw Medium 3	60186	100 ml

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