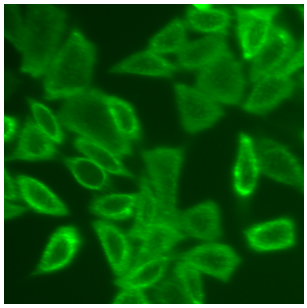
REF: P30505

CELL LINES

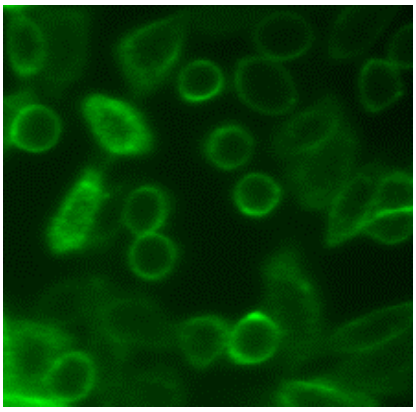
- IL12B CHO-K1-luc CELL LINE -



Product Name:	IL12B CHO-K1-luc cell line
Catalog Number:	P30505
Cell Line:	CHO-K1
Resistance:	Puromycin + G418
Format:	>3x10^6 cells in Cryopreserved vials
Storage:	Liquid Nitrogen

IL12B CHO-K1-luc cell line

The IL12B CHO-K1-Luc cell line has been developed by stable co-transfection with luciferase and a human Interleukin 12B (IL12B) protein expression plasmid. IL12B-CHO-K1-luc cell line provides consistent levels of expression of IL12B protein in cells surface.



This cell line is intended to be used as an “in vitro” model for research studies.

About IL12 protein

The IL-12 familiy of cytokines are related with cancer, infection and inflammatory procesess.

Interleukin (IL)-12 is a heterodimer formed by two subunits, p35 and p40, encoded by IL12A and IL12B genes, respectively. The p40 is also present as a subunit of IL-23 cytokine.

Cancer: IL-12 has antiangiogenic properties and has emerged as one of the most potent agents for anti-tumor immunotherapy.

Bibliography: Tait Wojno, E. D., Hunter, C. A., & Stumhofer, J. S. (2019). The Immunobiology of the Interleukin-12 Family: Room for Discovery. Immunity, 50(4), 851–870. https://doi.org/10.1016/j.immuni.2019.03.0116762–6775.

Wang, P., Li, X., Wang, J., Gao, D., Li, Y., Li, H., Chu, Y., Zhang, Z., Liu, H., Jiang, G., Cheng, Z., Wang, S., Dong, J., Feng, B., Chard, L. S., Lemoine, N. R., & Wang, Y. (2017). Re-designing Interleukin-12 to enhance its safety and potential as an anti-tumor immunotherapeutic agent. Nature communications, 8(1), 1395. https://doi.org/10.1038/s41467-017-01385-8

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RT-PCR analysis

The presence of IL12B mRNA was analyzed by RT-PCR.

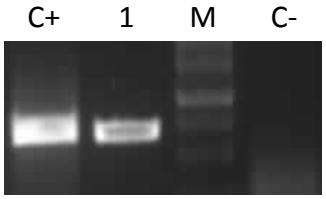

Figure 1. IL12B RT-PCR anaylisis. (1) IL12B CHO-K1-luc cell line. Positive Control (C+): IL12B cDNA. Negative Control (C-): not transfected CHO-K1 cells.

Immunofluorescence analysis

The detection of IL12B protein in the cells surface was carried out by immunofluorescence analysis with a FITC tagged anti- IL12B antibody.

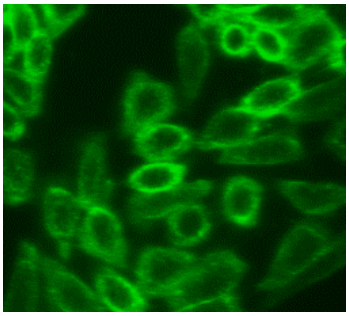

Figure 2. **Immunofluorescence assay**. The image in the left panel shows the membrane localization of IL12B in CHO-K1 cell line. The image in the right panel shows bright field.

Flow Cytometry analysis

The detection of IL12B protein in the cells surface and the ratio of positive cells in the population was carried out by cytometry analysis with a FITC tagged anti-IL12B antibody.

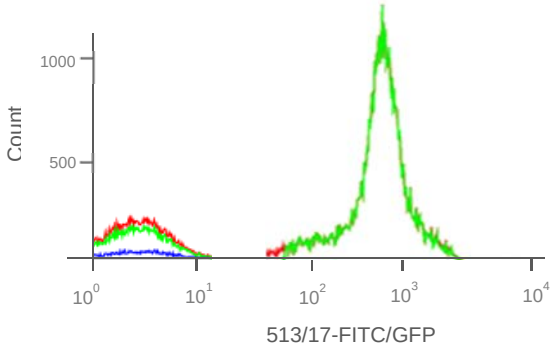

Figure 3. **Cytometry assay**. The graph shows the detection of IL12B protein in the surface of non-transfected CHO-K1 cell line (left curve) and IL12B-CHO-K1 cell line (right curve).

Luciferase assay

Double positive clones were verified with a luciferase assay kit from Sigma (#LUC1). Luminiscence detection was carried out with the Synergy 2 Multi-Mode Microplate reader from BioTek.

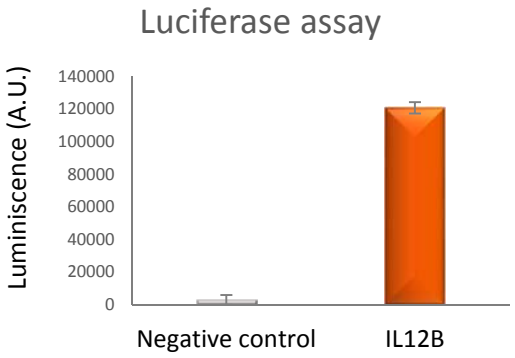

Figure 3. Luciferase anaylisis. The graph shows the luminescence detection of negative control (non-transfected CHO-K1 cells, grey) and IL12B CHO-K1-luc cell line (orange).

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Quality Control

All cells are performance assayed and test negative for mycoplasma, bacteria, yeast and fungi. Cell viability, morphology and proliferative capacity are measured after recovery from cryopreservation. Innoprot guarantees stable expression for many generations and provides support for cell culture and visualization.

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