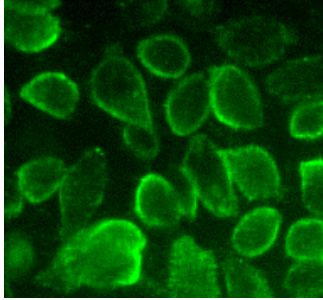


CELL LINES

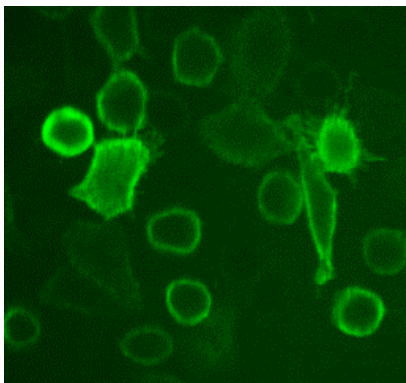
- CD20 CHO-K1-LUC CELL LINE -



Product Name:	CD20 CHO-K1-luc cell line
Catalog Number:	P30507
Cell Line:	CHO-K1
Resistance:	Hygromycin + G418
Format:	>3x10 ⁶ cells in Cryopreserved vials
Storage:	Liquid Nitrogen

CD20 CHO-K1-luc cell line

The CD20 CHO-K1-luc cell line has been developed by stable co-transfection with a human T-lymphocyte-associated protein 4 (CD20) and Luc proteins expression plasmids. CD20 CHO-K1-luc cell line provides consistent levels of expression of Luc and CD20 proteins



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

About CD20 protein

The pan B-cell marker CD20 is one of the most studied antibody targets to date.

CD20 is a part of a cell-surface complex responsible for adjusting calcium transport. The regulation of this ion influx CD20 is able to switch on intracellular signaling pathways. CD20 is the target of monoclonal antibody therapies for the treatment of cancer and autoimmune diseases.

Cancer: CD20 is present on the surface of malignant B-cells.

Bibliography: Marshall, M., Stopforth, R. J., & Cragg, M. S. (2017). Therapeutic Antibodies: What Have We Learnt from Targeting CD20 and Where Are We Going?. *Frontiers in immunology*, 8, 1245.
<https://doi.org/10.3389/fimmu.2017.01245>

The applications of anti-CD20 antibodies to treat various B cells disorders. Payandeh Z, Bahrami AA, Hoseinpoor R, Mortazavi Y, Rajabibazi M, Rahimpour A, Taromchi AH, Khalil S.

<https://doi.org/10.1016/j.biopha.2018.11.121>

RT-PCR analysis

The presence of CD20 mRNA was analyzed by RT-PCR.

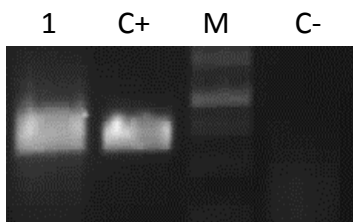


Figure 1. CD20 RT-PCR analysis. (1) CD20 CHO-K1-luc cell line. Positive Control (C+): CD20 cDNA. Negative Control (C-): not transfected CHO-K1 cells.

Immunofluorescence analysis

The detection of CD20 protein in the cells surface was carried out by immunofluorescence analysis with a FITC tagged anti-CD20 antibody.

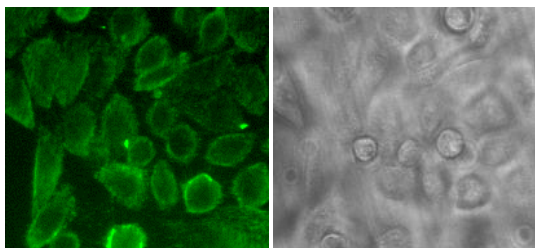


Figure 2. Immunofluorescence assay. The image in the left panel shows the membrane localization of CD20 in CHO-K1-luc cell line. The image in the right panel shows bright field.

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.

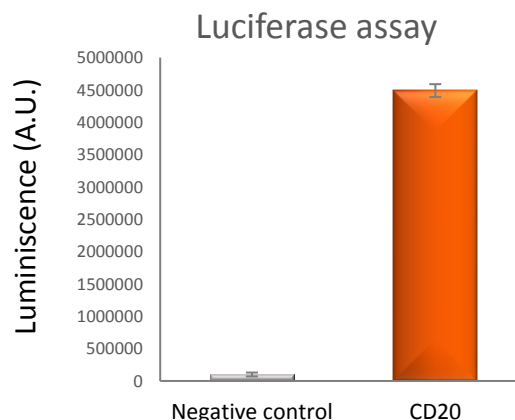


Figure 3. Luciferase analysis. The graph shows the luminiscence detection of negative control (non-transfected CHO-K1 cells, grey) and CD20 CHO-K1-luc cell line (orange).

Cytometry analysis

The detection of CD20 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-CD20 antibody.

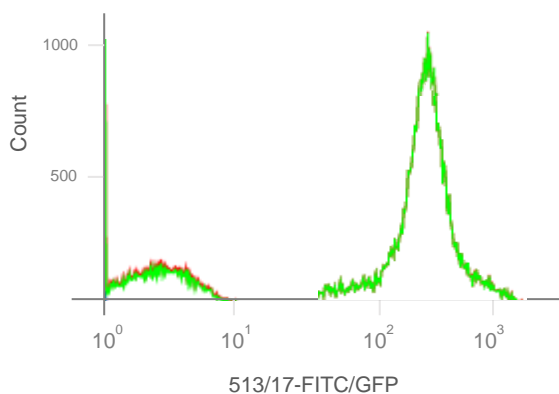


Figure 3. Cytometry assay. The graph shows the detection of CD20 protein in the surface of non-transfected CHO-K1 cell line (left curve) and CD20-CHO-K1-luc cell line (right curve).

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.

THIS PRODUCT IS FOR RESEARCH PURPOSES ONLY. It is not to be used for drug or diagnostic purposes, nor is it intended for human use. Innoprot products may not be resold, modified for resale, or used to manufacture commercial products without written approval of Innovative Technologies in Biological Systems, S.L.