Fluofarma
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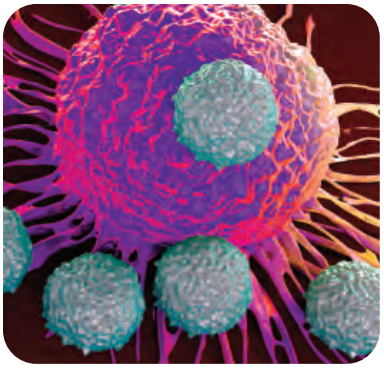


ONCOLOGY

Immune cell killing assay

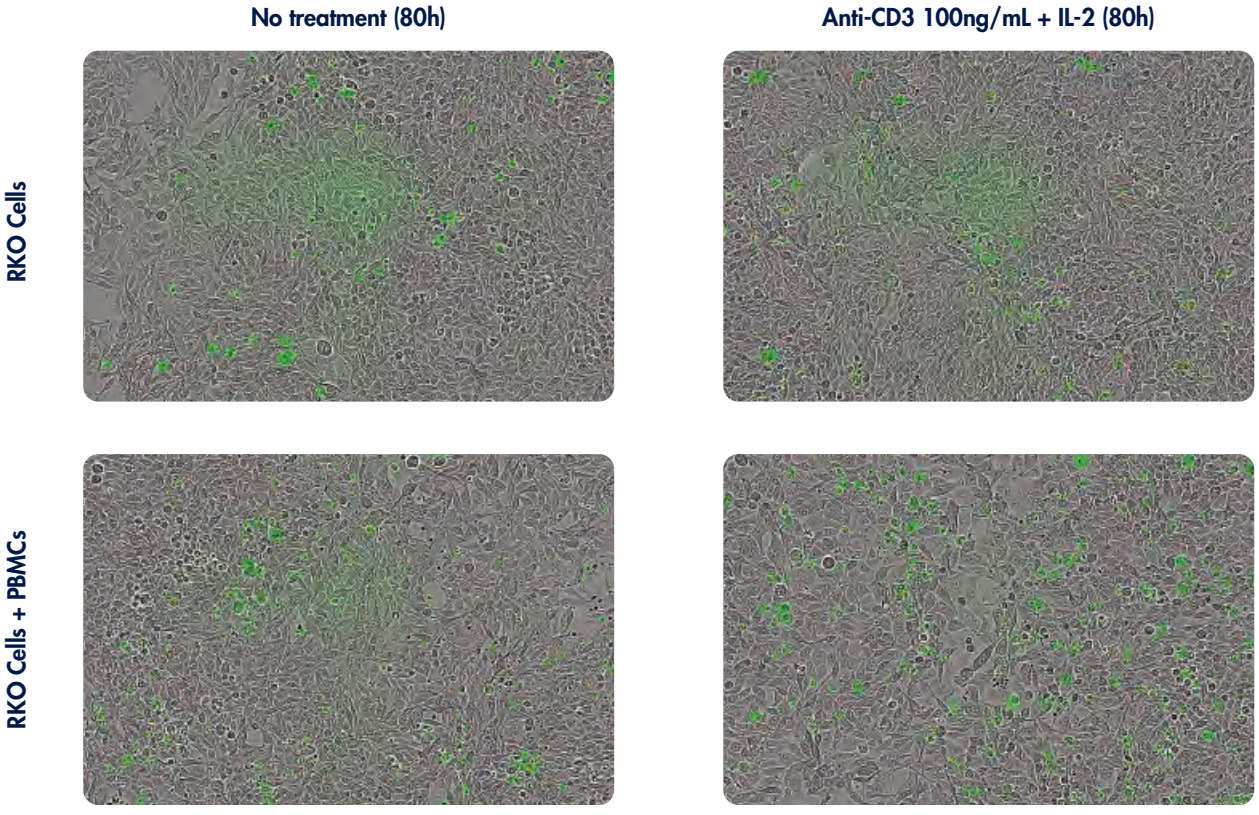
Porsolt Fluofarma is excited to announce the recent validation and addition of the in vitro Immune cell killing assay. This live content imaging assay is a valuable addition to our immuno-oncology portfolio and brings important insights into the development and characterization of cancer immuno-therapy.

This assay allows us to kinetically analyze the Antibody-dependent cell-mediated cytotoxicity *(ADCC)* and the T cell killing which are two mechanisms of cell-mediated immune response. Each of these processes involves the stimulation of immune cell sub-populations which then actively lyse target cells.

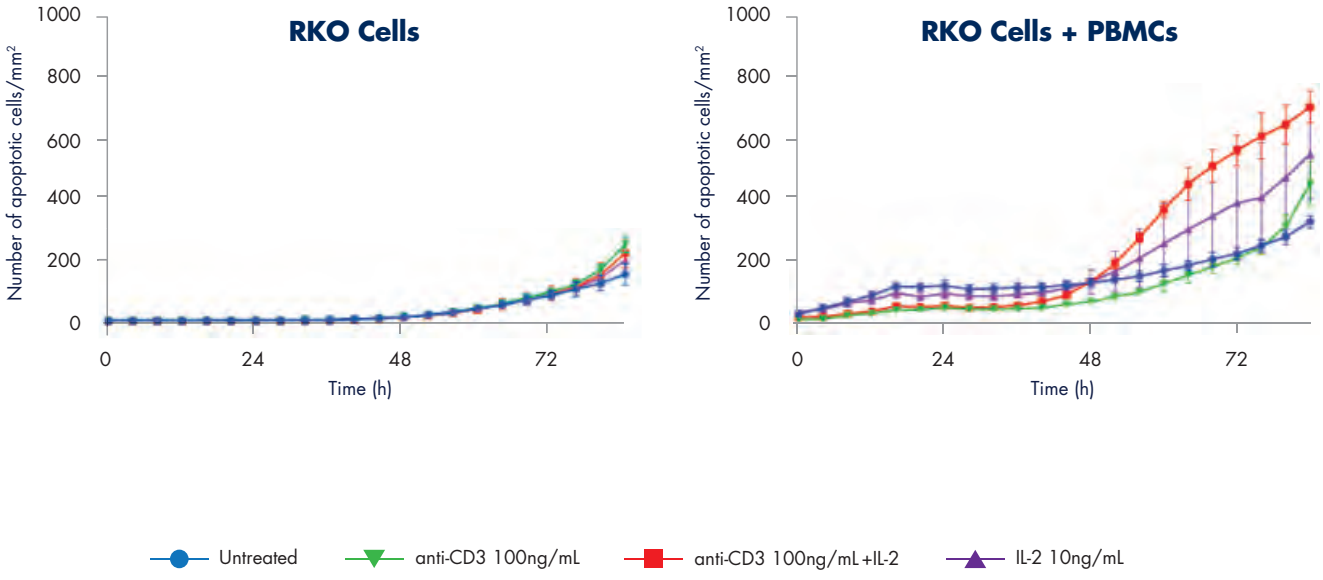
The fully kinetic live cell imaging assay is based on the co-culture of target cells (cancer cell line) and effector cells (immune cells).

The cell death is analyzed on a live content imaging platform *(Incucyte Zoom®, Essen Bioscience)* by the long term monitoring *(> 24h)* of apoptosis induction with a nonperturbing caspase 3/7 apoptosis fluorescence detection reagent *(Essen Bioscience).*

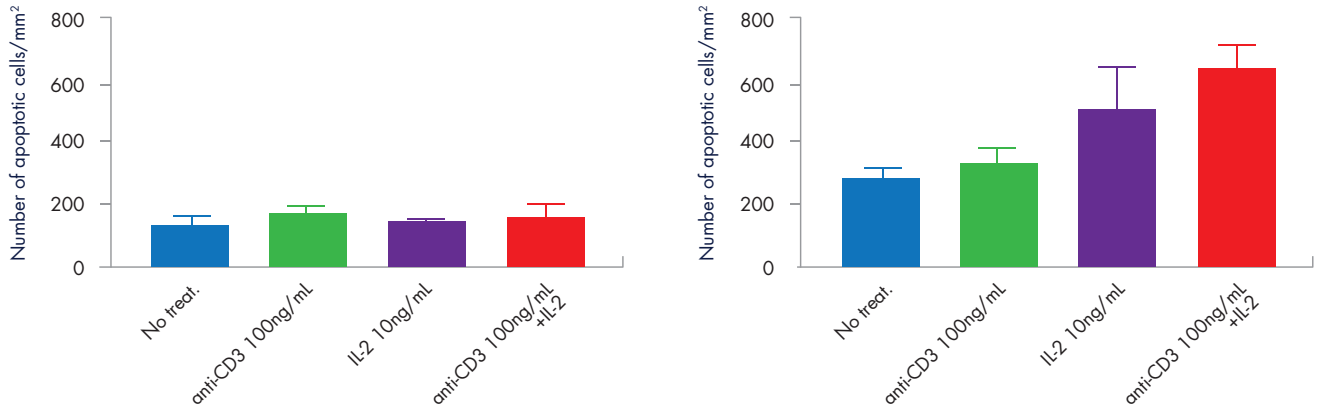
The addition of different activators in the culture medium allows for the study of how these factors can potentiate the tumor cell killing by ADCC and T cell killing. In the presented case study, the RKO human colon carcinoma cell line *(target cells)* was co-cultured with a human heterogeneous PBMCs population comprising both cytotoxic T lymphocytes and NK cells *(effector cells),* in the presence of different combinations of T cell activators *(anti-CD3 and Il-2)* and the apoptosis fluorescent probe. The number of apoptotic cells was measured using green *(caspase 3/7)* object counting *(Zoom® v2016A software, Essen Bioscience).*



Kinetic monitoring



Endpoint analysis (80h)



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