

THE EFFECT OF EXTRACT1 ON VIABILITY OF HUMAN CANCER CELL LINES IN CULTURE

Final Report: Amir Tivon Exp 001



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Updated on: 05.05.2015

Experiment title: THE EFFECT OF EXTRACT1 ON VIABILITY OF HUMAN CANCER CELL LINES IN CULTURE

Experiment Goal: To evaluate the effect of Extract1 on viability of human cancer cell lines in vitro.

Specific Materials:

1. Cell lines: a. A549 human lung carcinoma
b. U-87 MG glioblastoma-astrocytoma
c. MDA-MB-231 breast adenocarcinoma

Source: ATCC via Science in Action

2. Complete Growth Media
3. Chemotherapeutic agent as a control: Doxorubicin
4. Test compound: Extract1 - Extract supplied by the Sponsor 45.7 gram/49.1ML and evaporated using Buchi Evaporator at Science in Action to 27.5gram/28.3 ML (Stock solution).
5. VisionBlue Cell Viability Fluorimetric Assay Kit.

Procedure:

1. Cultured cells were grown under standard tissue culture conditions until the day of the experiment.
2. At the day of experiment, cells were seeded $5 \cdot 10^3$ cells/well (A549, MDA-MB-231) or $7 \cdot 10^3$ cells/well (U-87 MG) in tissue culture 96-well plates in a volume of 0.1ml complete growth medium per well.

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3. The next day, 24 hours after seeding, culture medium was replaced by complete growth medium containing Extract1 at the concentration range of 0.1%-10%.
4. Upon 48 hours of incubation, the medium was replaced by complete growth medium containing VisionBlue reagent to measure cell viability for 2 hours of incubation in 37°C.
5. Cell viability was determined using fluorescent ELISA reader at the wavelengths of Ex/Em=530/590
6. Cell viability was determined as a percentage of viable cells compared to non-treated wells.

Results:

A549	Treatment	% Viability	% Inhibition
	Extract1 0%	100	-
	Extract1 0.1%	101	-1
	Extract1 0.5%	72	28
	Extract1 1%	50	50
	Extract1 2.5%	7	93
	Extract1 5%	0	100
	Extract1 7.5%	0	100
	Extract1 10%	0	100
	Dox 1 microM	87	13
	Dox 5 microM	66	34

U-87 MG	Treatment	% Viability	% Inhibition
	Extract1 0%	100	-
	Extract1 0.1%	141	-41
	Extract1 0.5%	117	-17
	Extract1 1%	97	3
	Extract1 2.5%	39	61
	Extract1 5%	0	100
	Extract1 7.5%	0	100
	Extract1 10%	0	100
	Dox 1 microM	59	41
	Dox 5 microM	30	70

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MDA-MB-231	Treatment	% Viability	% Inhibition
	Extract1 0%	100	-
	Extract1 0.1%	145	-45
	Extract1 0.5%	72	28
	Extract1 1%	62	38
	Extract1 2.5%	44	56
	Extract1 5%	22	78
	Extract1 7.5%	12	88
	Extract1 10%	0	100
	Dox 1 microM	55	45
	Dox 5 microM	48	52

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רמון מרגלית
 מנכ"ל
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