

THE EFFECT OF FILTERED AND NON-FILTERED EXTRACT1 ON VIABILITY OF MD-MB-231 CELLS IN CULTURE

Final Report: Amir Tivon Exp 002



Exp 002 Final Report
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Experiment title: THE EFFECT OF FILTERED AND NON-FILTERED EXTRACT1 ON VIABILITY OF MD-MB-231 CELLS IN CULTURE

Experiment Goal: To evaluate the effect of filtering Extract1 on viability of human breast cancer cell line MD-MB-231 in vitro.

Specific Materials:

1. Cell line: 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 287.4 gram and evaporated using Buchi Evaporator at Science in Action to 172 gram (Stock solution).
5. Filtered Extract1: upon evaporation, a fraction of Extract1 was filtered using a filter with 45 micrometer pores.
6. 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, MDA-MB-231 cells were seeded in 96-well tissue culture plates in a volume of 0.1ml complete growth medium per well. Seeding density was $5 \cdot 10^3$ cells/well.

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3. The next day, 24 hours after seeding, culture medium was replaced by complete growth medium containing Extract1 or filtered 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:

Non-filtered Extract 1	Treatment	% Viability	% Inhibition
	Extract1 0%	100	0
	Extract1 0.1%	97	3
	Extract1 0.5%	101	-1
	Extract1 1%	64	36
	Extract1 2.5%	2	98
	Extract1 5%	0	100
	Extract1 7.5%	0	100
	Extract1 10%	3	97
	Dox 0.5 microM	61	39
	Dox 1 microM	55	45

Filtered Extract1	Treatment	% Viability	% Inhibition
	Extract1 0%	100	0
	Extract1 0.1%	98	2
	Extract1 0.5%	101	-1
	Extract1 1%	94	6
	Extract1 2.5%	91	9
	Extract1 5%	73	27
	Extract1 7.5%	54	46
	Extract1 10%	34	66
	Dox 0.5 microM	59	41
	Dox 1 microM	53	47

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