

# **Evaluating the effects of an organic extract from the Mediterranean sponge Geodia cydonium on human breast cancer cell lines**

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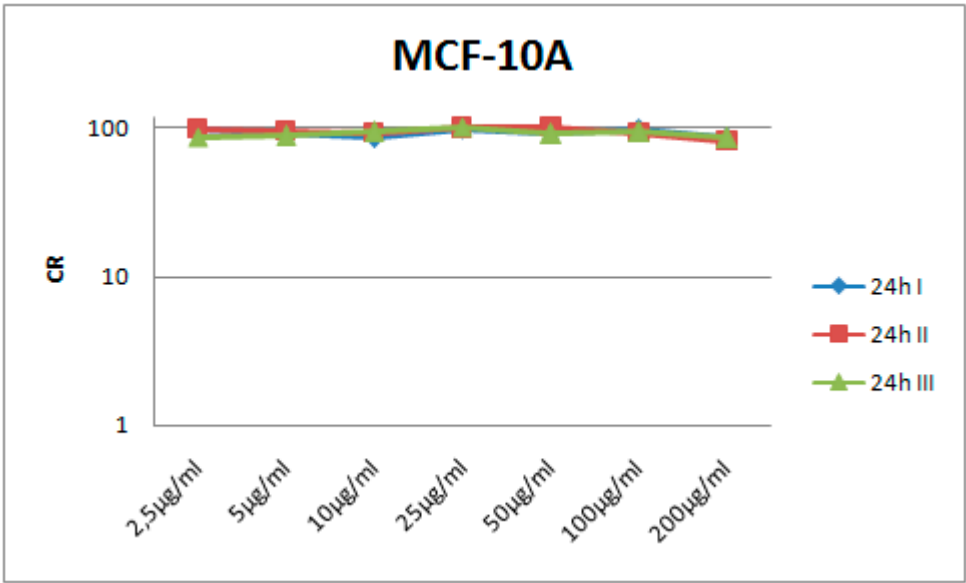
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**Table S1.** List of metabolic pathways in which the significant metabolites in the polar phases of three breast cancer cell lines are involved

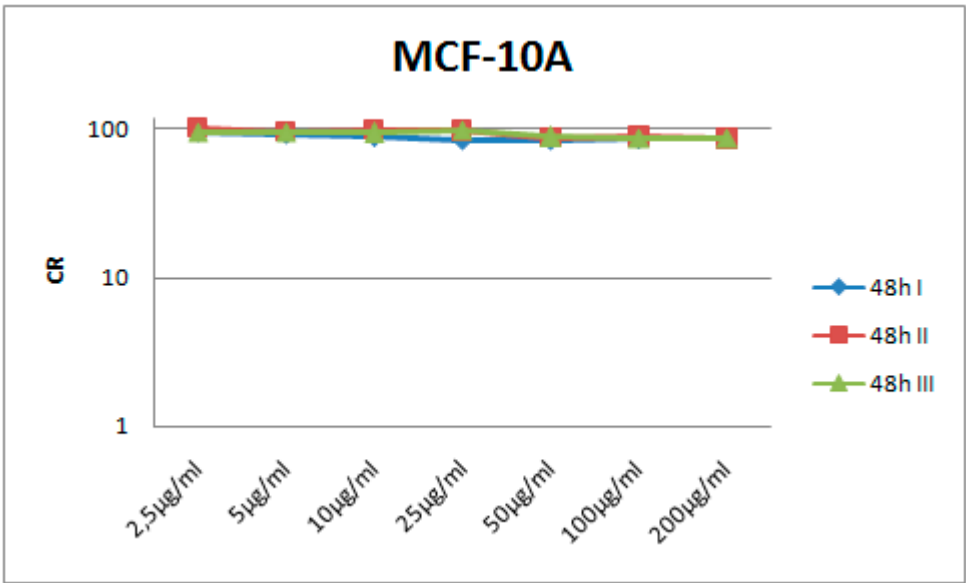
Pathway	Molecules
<i>Common between three cell lines</i>	
Glycolysis and Gluconeogenesis	Lactate, alpha-glucose, beta-glucose
Glycerophospholipidmetabolism	Choline and glycerophosphocholine
Glutamine and glutamatemetabolism	glutamine and glutamate
<i>Specific in MCF-7</i>	
Aminoacyl-tRNAbiosynthesis	glutamine and proline
<i>Specific in MDA-MB231</i>	
Glycine, Serine, Threoninemetabolism	Choline, Glycine, Threonine
Nitrogenmetabolism	Glutamine, Glycine
Aminoacyl-tRNAbiosynthesis	Glutamine, Glycine, Threonine
<i>Specific in MDA-MB468</i>	
Aminoacyl-tRNAbiosynthesis	Glutamine, Glycine, Lysine, Asparagine
Nitrogenmetabolism	Glutamine, Glycine, Asparagine
Cyanoamido acid metabolism	Glutamine, Glycine, Asparagine
Alanine, aspartate and glutamatemetabolism	Glutamine, Asparagine
Lysinedegradation	Glycine, Lysine

**Fig S1**

**a**



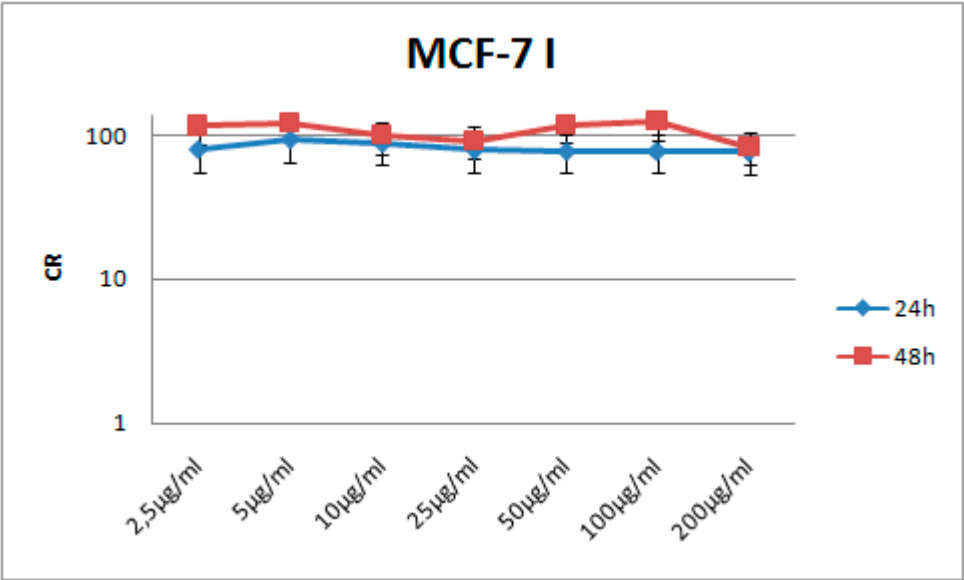
**b**



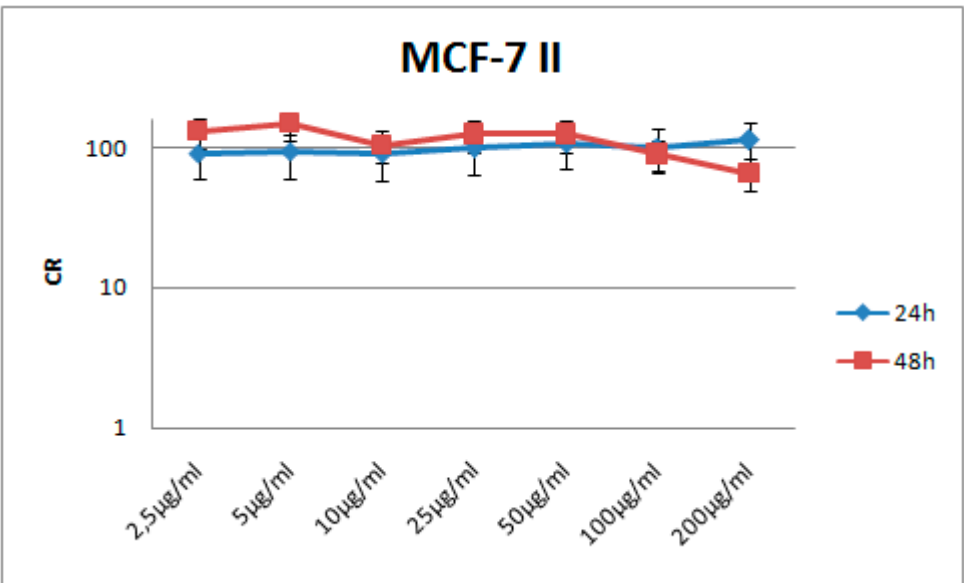
**Fig S1.** Cell viability (CR) related to normal breast cells, MCF-10A, after the treatment with three sponge sub-fractions named 1, 2 and 3 for (a) 24 and (b) 48 h.

Fig S2

a



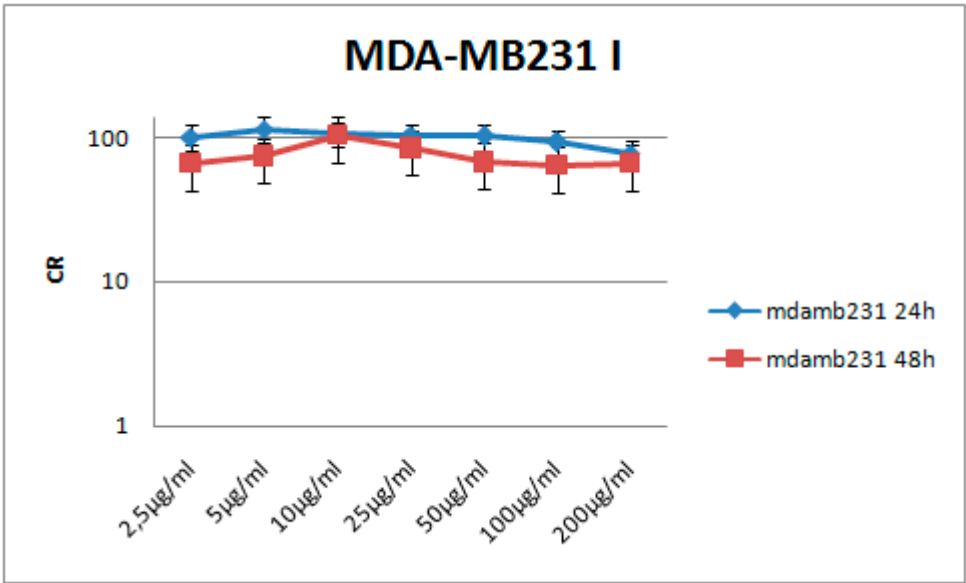
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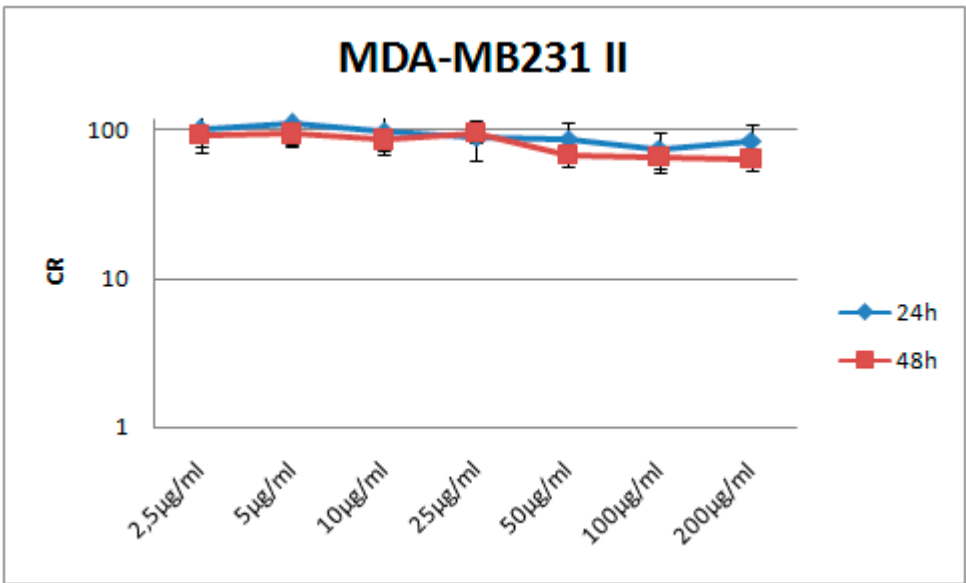
**Fig S2.** Cell viability (CR) related to breast cancer cells, MCF-7, after the treatment with two sponge sub-fractions named 1 (a) and 2 (b)for 24 and 48 h.

**Fig S3**

**a**



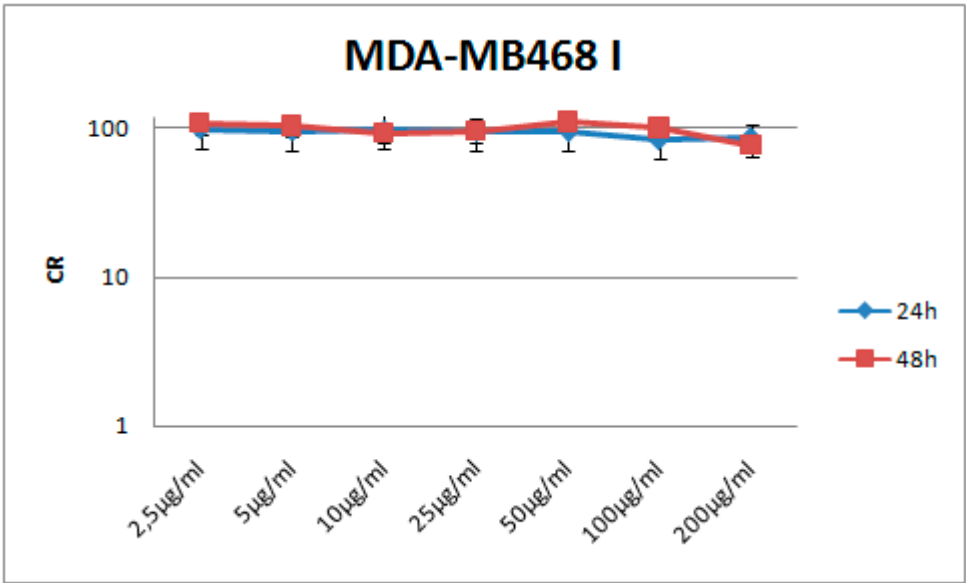
**b**



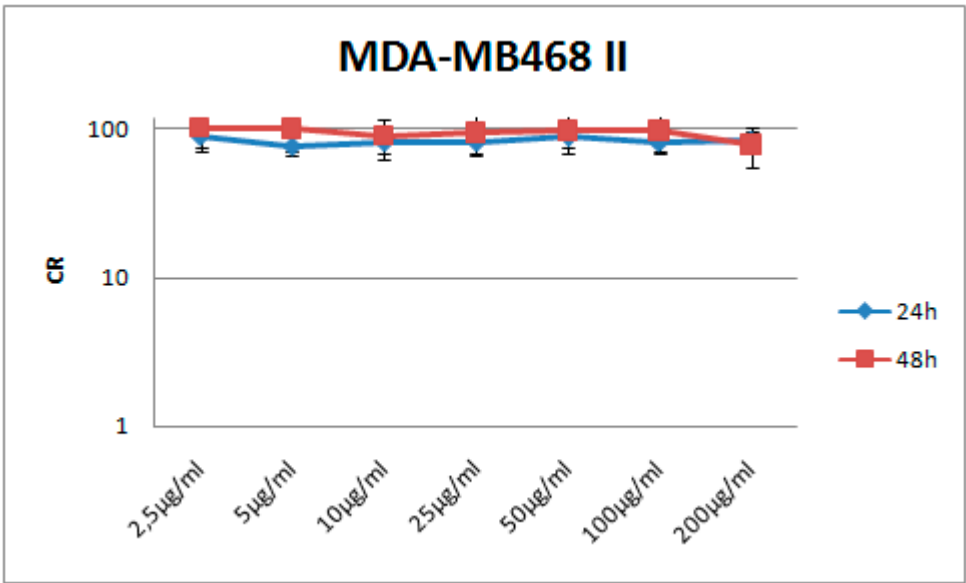
**Fig S3.** Cell viability (CR) related to breast cancer cells, MDA-MB231, after the treatment with two sponge sub-fractions named 1 (a) and 2 (b) for 24 and 48 h.

**Fig S4**

**a**



**b**



**Fig S4.** Cell viability (CR) related to breast cancer cells, MDA-MB468, after the treatment with two sponge sub-fractions named 1 (a) and 2 (b) for 24 and 48 h