

Table S2. Summarizes of composition of *Chondrus crispus polysaccharide* extracts and explored in terms of their biological activities on RAW264.7 murine macrophages, HDF, HaCaT and Caco2 cells. Values are expressed as mean \pm SEM (n=4); Data is compared to values of the control group. **** $p < 0.0001$, *** $p < 0.001$, ** $p < 0.01$ and * $p < 0.05$ considered statistical significant between the control group. (*) indicates a statistically significant difference using ANOVA, followed by Dunnett comparisons test. Cell viability was detected by using MTT solution 5 mg/mL and Cell proliferation detected by using AlamarBlue Cell Viability assay) at deferent time interval. Milli-Q water was used as a control (NT - no treatment), Lipopolysaccharide (Lipo-100 $\mu\text{g}/\mu\text{L}$) was used as a positive control; PC and Mitomycin-C (0.04 $\mu\text{g}/\mu\text{L}$) use as a negative control; NC.

Species name	RAW264.7 Cell proliferation (0.01 $\mu\text{g}/\mu\text{L}$, %) and Phagocytosis activities					HDF Cell proliferation (0.5 $\mu\text{g}/\mu\text{L}$, %) and SOD activities				HaCaT Cell proliferation (0.5 $\mu\text{g}/\mu\text{L}$, %)			Caco-2 Cell proliferation (0.01 $\mu\text{g}/\mu\text{L}$)		
	24 hrs	48 hrs	72 hrs	Phagocytosis (%)	NO Production	24 hrs	48 hrs	72 hrs	SOD (%)	24 hrs	48 hrs	72 hrs	24 hrs	48 hrs	72 hrs
CC-1A	69.7 \pm 4.8	42.6 \pm 1.0	31.4 \pm 1.1	138.4 \pm 2.5	15.1 \pm 1.3	111.1 \pm 4.7	95.37 \pm 2.5	80.6 \pm 1.8	18.5 \pm 1.2	102.8 \pm 2.6	90.6 \pm 3.5	50.7 \pm 1.8	100.0 \pm 2.5	92.1 \pm 2.6	77.1 \pm 4.3
CC-2A	120.8 \pm 3.4	43.7 \pm 1.0	31.1 \pm 1.3	148.4 \pm 4.1	16.4 \pm 0.9	110.4 \pm 5.9	90.59 \pm 1.8	85.9 \pm 2.5	19.6 \pm 1.2	100.2 \pm 1.8	80.0 \pm 2.7	40.1 \pm 1.7	94.73 \pm 2.3	80.0 \pm 3.3	74.4 \pm 3.2
CC-2B	141.6 \pm 2.1	90.7 \pm 3.2	35.1 \pm 1.2	88.3 \pm 3.2	5.6 \pm 0.7	108.1 \pm 4.7	115.8 \pm 3.1	106.7 \pm 2.1	28.44 \pm 0.6	114.1 \pm 1.5	110.3 \pm 2.2	143.8 \pm 8.3	105.9 \pm 1.0	88.4 \pm 4.6	88.4 \pm 7.6
CC-3A	128.1 \pm 2.7	41.5 \pm 1.6	26.1 \pm 0.4	101.7 \pm 2.2	15.9 \pm 1.7	102.8 \pm 4.6	91.6 \pm 2.0	78.6 \pm 1.5	18.40 \pm 0.5	109.1 \pm 1.2	68.5 \pm 0.8	59.2 \pm 2.0	98.7 \pm 3.0	89.6 \pm 1.2	80.5 \pm 1.2
CC-3B	121.1 \pm 1.1	113.0 \pm 3.6	45.2 \pm 2.3	102.0 \pm 3.1	12.8 \pm 0.5	122.5 \pm 7.2	115.0 \pm 3.0	77.9 \pm 2.3	25.2 \pm 0.9	110.9 \pm 2.9	99.2 \pm 3.4	109.6 \pm 6.9	93.25 \pm 2.3	91.6 \pm 4.0	84.2 \pm 3.8
NT	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	3.3 \pm 0.4	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	4.2 \pm 1.40	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0	100.0 \pm 0.0
NC	39.4 \pm 1.7	39.7 \pm 1.6	56.0 \pm 1.89	-	-	36.7 \pm 1.6	50.3 \pm 1.2	43.1 \pm 1.4	7.16 \pm 0.8	64.1 \pm 2.1	56.0 \pm 2.1	29.5 \pm 1.7	93.2 \pm 1.7	92.7 \pm 2.2	113.7 \pm 3.49
PC	123.2 \pm 0.77	64.49 \pm 1.1	50.67 \pm 3.95	115.5 \pm 1.7	7.5 \pm 0.6	-	-	-	26.3 \pm 1.3	-	-	-	125.5 \pm 3.8	166.2 \pm 3.7	149.5 \pm 3.3

-: not tested