**SUPPLEMENTARY FIGURE 1**



**Supplementary Figure 1. Determination of the 50% cytotoxic concentration (CC50) of the *Macrocystis pyrifera* and *Durvillaea antarctica* algae extracts.** Cells were incubated with serially-diluted algae aqueous extracts starting at 125 mg/mL and the cell viability was evaluated at 24 h post-treatment using a resazurin-based assay (alamarBlue®). **(A)** Viability curve showing the CC50 of the *Macrocystis pyrifera* extract in HeLa cells. **(B)** Viability curve showing the CC50 of the *Durvillaea antartica* extract in HeLa cells. **(C)** Viability curve showing the CC50 of the *Macrocystis pyrifera* extract in human gingival fibroblasts. **(D)** Viability curve showing the CC50 of the *Durvillaea antartica* extract in human gingival fibroblasts. Data shown are means ± SEM of three independent experiments.

**SUPPLEMENTARY FIGURE 2**



**Supplementary Figure 2. Maximum non-toxic dose (MNTD) of the *Macrocystis pyrifera* and *Durvillaea antarctica* size-fractionated extracts*.*** (**A**) MNTD in HeLa cells treated with the *Macrocystis pyrifera* size-fractionated extract. (**B**) MNTD in HeLa cells treated with *Durvillaea antarctica* size-fractionated extract. UT: untreated cells; EtOH: cells treated with 70% ethanol. Data shown are means ± SEM of three independent experiments. The data were analyzed using one-way ANOVA and Dunnett’s multiple comparisons test; \*\*\*\* p<0.0001, \* p<0.05*.*

**SUPPLEMENTARY FIGURE 3**

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**Supplementary Figure 3. Viral loads (qPCR) in the dorsal root ganglia of HSV-1-infected and *Macrocystis pyrifera* or *Durvillaea antarctica* algae extract-treated animals.** Viral genome copies (DNA, *UL30*gene) were determined by qPCR in the dorsal root ganglia of HSV-1-infected animals at 11 days post-infection. Data shown are means ± SEM (n=3-4/group). The data were analyzed using one-way ANOVA with Bonferroni’s post-test; No significant differences were observed between groups*.*