

Figure S1. Conchosporangia of *Neopyropia yezopensis*. Clearly visualized side branches are indicated by arrows. Scale bar: 25 μm .

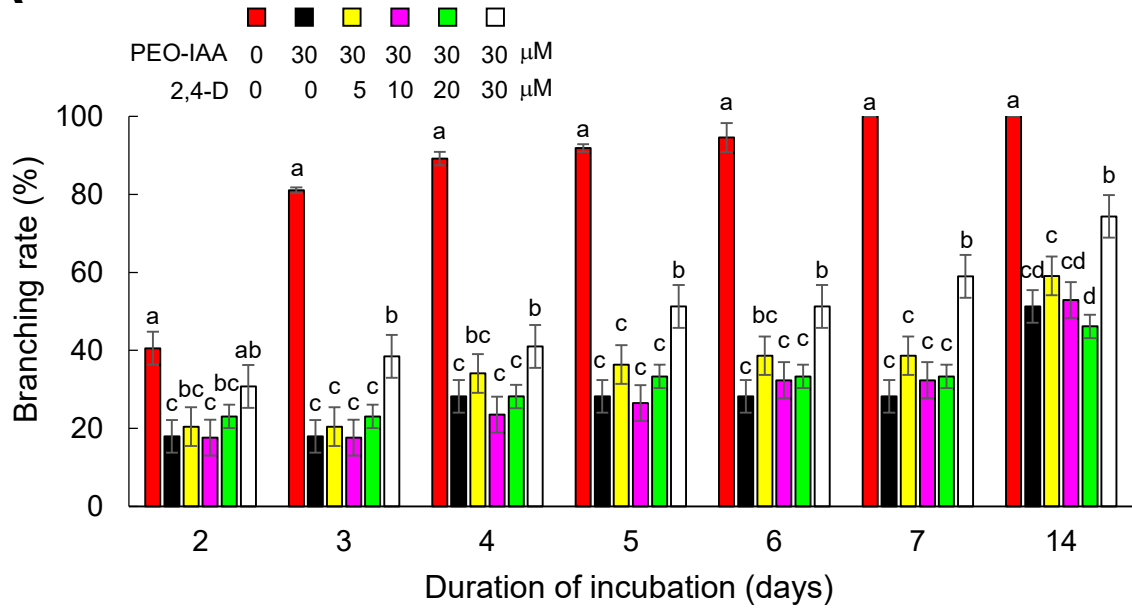
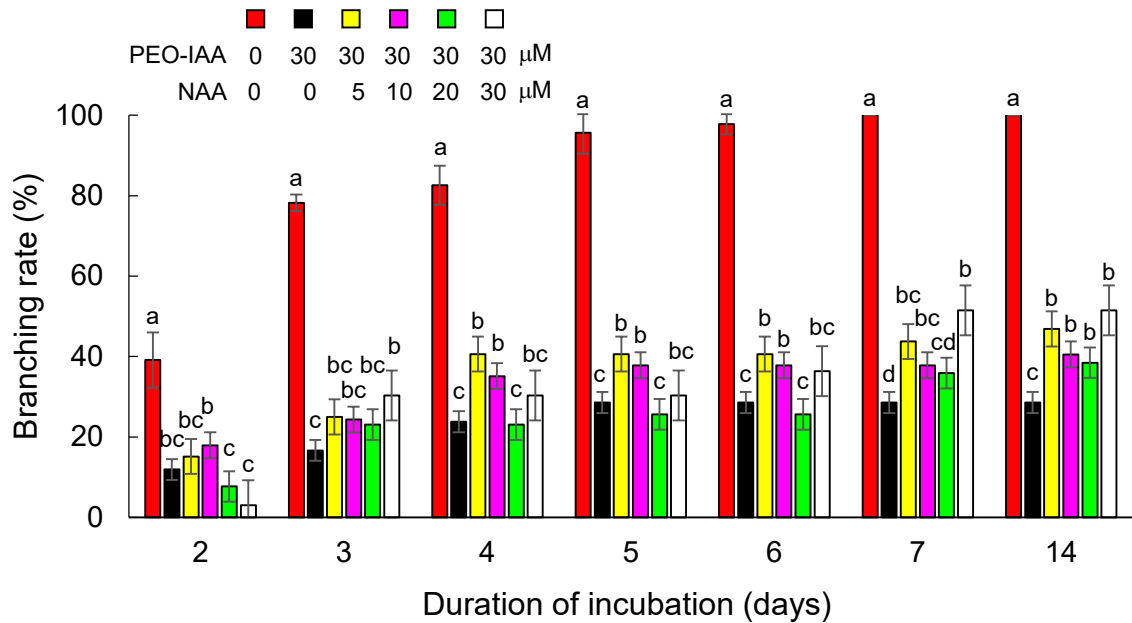
A**B**

Figure S2. Recovery from inhibitory effects of PEO-IAA by exogenously supplied 2,4-D and NAA. Changes in branching rate in single-celled conchocelis by treatment with various concentration of 2,4-D (A) and NAA (B) in the presence of 30 μ M PEO-IAA are shown. Error bars indicate the standard deviation of triplicate experiments ($n = 3$), and different lowercase letters denote significant differences in the branching rate, as determined by Tukey's test ($p < 0.05$) for each set of incubation time.

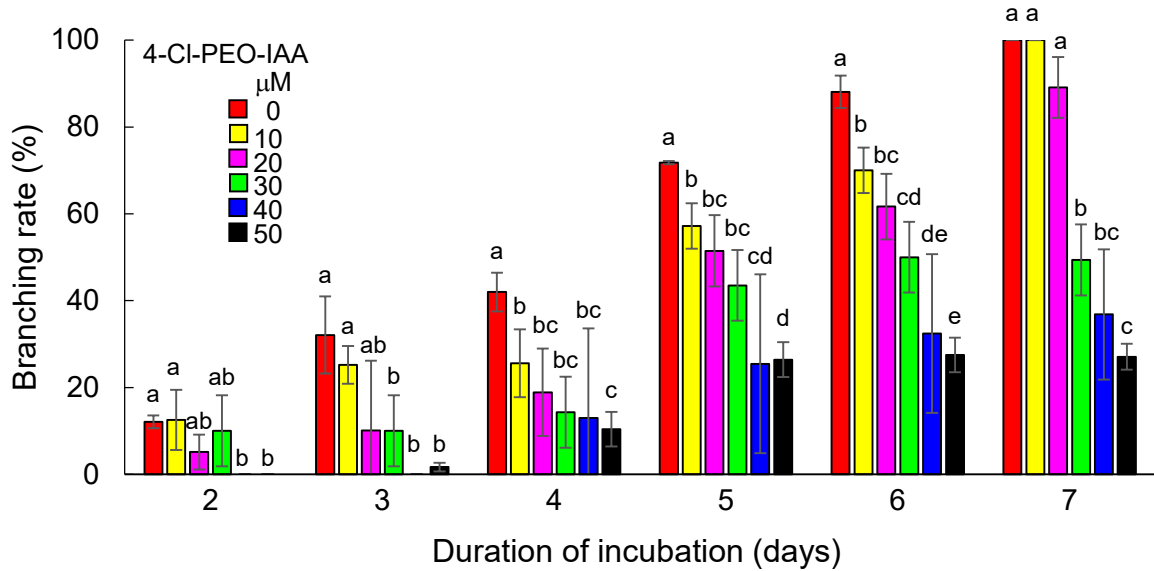
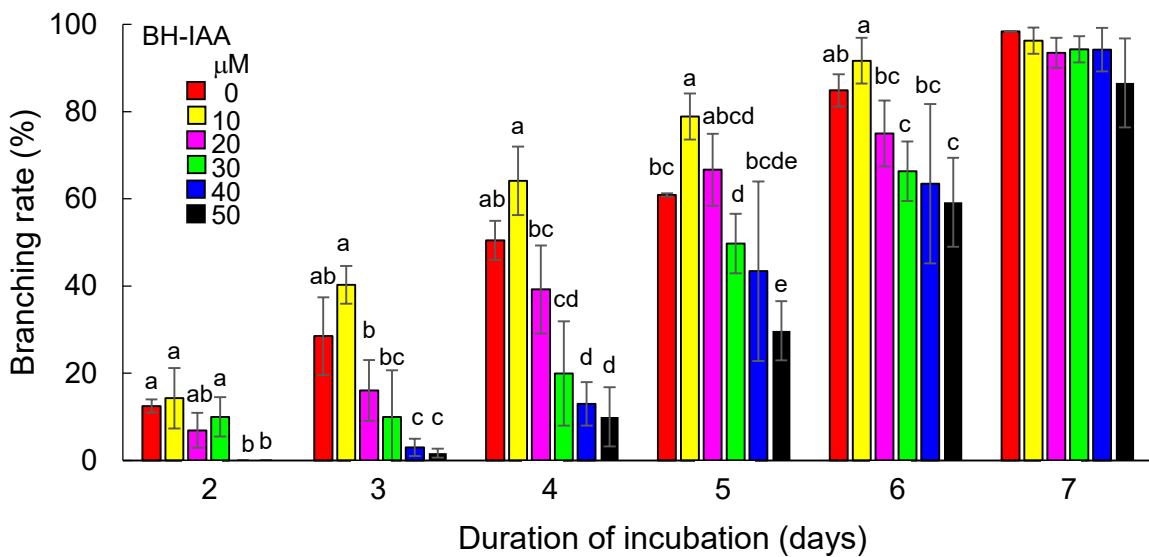
A**B**

Figure S3. Effects of treatment with the auxin antagonists 4-Cl-PEO-IAA and BH-IAA on the production of the side branches in single-celled conchocelis. Changes in branching rate in single-celled conchocelis following treatment with various concentration of 4-Cl-PEO-IAA (**A**) and BH-IAA (**B**) are shown. Error bars indicate the standard deviation of triplicate experiments ($n = 3$), and different lowercase letters denote significant differences in branching rate, as determined by Tukey's test ($p < 0.05$) for each set of incubation time.