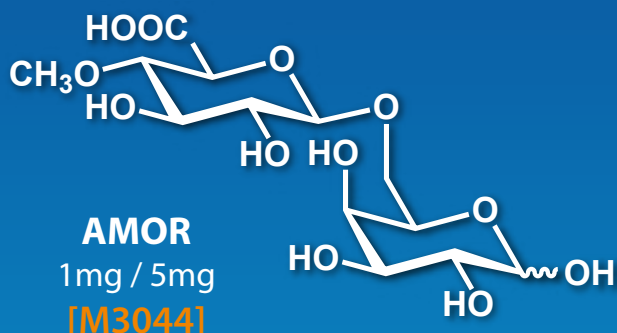


Glyco-enhancer of Plant Fertilization

AMOR

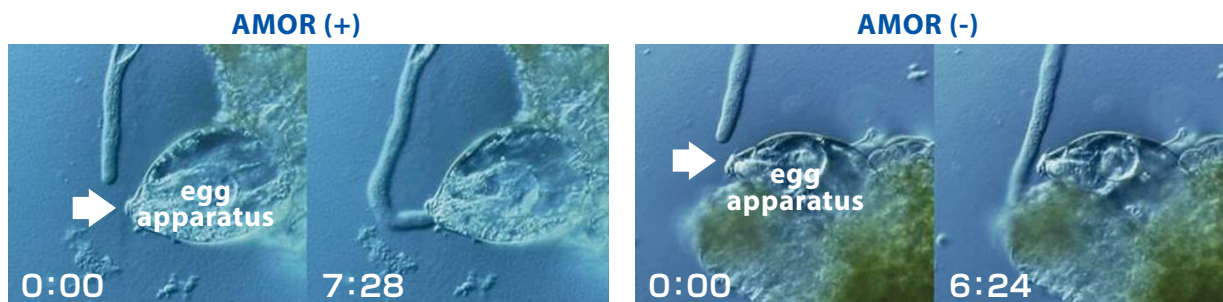


Advantages

- Terminal disaccharide structure of arabinogalactan
- Pistil-derived sugar chain which enhances fertilizing capacity of the pollen tube
- Enhances the activity and efficiency of plant fertilization
- Prepared by chemical synthesis

Overview

In plants, "pollen tube attractants" are essential for the pollen tube to reach the ovule. However, the mechanism for how pollen tubes respond to the attractant has not been elucidated. It has however, been hypothesized that the pistil secretes various activators to render the pollen tube fertile. Prof. Higashiyama and Dr. Mizukami at ITbM (Institute of Transformative Bio-Molecules, Nagoya University) and their colleagues have recently discovered a sugar chain involved in this bio-function using *Torenia*, and named it "AMOR".¹⁾



AMOR (**A**ctivation **M**olecule for **R**esponse-capability) features the sugar chain arabinogalactan which is uniquely found in plant cell walls. The terminal disaccharide structure, methyl-glucuronic acid and galactose beta binding structure (GlcA[4Me]β(1-6)Gal), is important in the plant cell-to-cell communication. Additionally, the AMOR disaccharide structure exists in various organs in plants. TCI has recently developed AMOR production technology through the chemical synthesis of these important glycans.

Reference 1) A. G. Mizukami, T. Higashiyama, et al., *Curr. Biol.* **2016**, 26, 1091. DOI: <https://doi.org/10.1016/j.cub.2016.02.040>

This product was commercialized by collaboration with Prof. Tetsuya Higashiyama.

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