

Cloning and characterization of MADS-box gene in oil palm

Abstract

Oil palm has emerged as one of the most important source of oils and fats. The mechanism of floral organs development in this plant is still at its infancy. We describe here the cloning and characterization of a MADS-box gene in oil palm (*Elaeis guineensis* Jacq.) named EMADS1. It belongs to the AGAMOUS-like2 family of MADS-box gene which plays critical role in flower development as defined by the ABCDE model. EMADS1 was ubiquitously expressed in the immature male and female flower buds and its expression pattern was similar to EgAGL2 and EgMADS8 of oil palm. The EMADS1 transcript also accumulated in embryos of developing seeds. These results suggested that EMADS1 is likely to function at the initial stages of flowering in determination of the inflorescence and the identity of the flower whorls and also embryo development in seeds.