

Abstract

Ethylene is perceived by a family of membrane localized receptors that are homologous to bacterial two component histidine kinases. The ethylene receptor multigene family can be divided into subfamily 1 and 2. The *Cm-ERS1* and *Cm-ETR1* which belong to the subfamily 1 in melon have already been isolated and characterized (Sato-Nara et al., 1999; Takahashi et al., 2002; Ma et al., in submission).

In order to gain better understanding of the role that ethylene receptor subfamilies play in melon fruit development and ripening, we isolated the full-length sequence of *Cm-ETR2*, a subfamily 2 receptor homolog from melon (*Cucumis melo* L. cv. Vedranta) fruit, using PCR-based technology. The characteristics and the gene expression patterns of this receptor homolog during melon fruit development and ripening will be reported and the role of subfamily 2 receptors in melon fruit development will be discussed.