

Ethylene Insensitive Plants

Inventors:

Joseph Ecker, Ramlah Nehring, Robert McGrath

Applications:

Plant Biology, Agriculture, Horticulture, Floriculture
Mutants conferring ethylene insensitivity on plants

The gaseous plant hormone ethylene modulates a diverse array of biological processes in plants including cell elongation, senescence and abscission of leaves and flowers, fruit ripening and responses to a wide variety of biotic and abiotic stresses. The ability to genetically manipulate ethylene production will provide agriculture with new tools to prevent detrimental effects (senescence) or provide the beneficial properties of ethylene responsiveness, such as controlling fruit ripening. The invention describes a mutated form of the EIN6 gene (*ein6*) that results in an altered response to ethylene including an ethylene insensitive root (EIR) phenotype. A double mutant consisting of the mutant EIN6 gene and a mutated form of the *een* gene results in ethylene insensitivity throughout the plant in contrast to the EIR phenotype found in the *ein6* single mutant.

References:

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Contact: Michael White, Ph.D., Senior Licensing Executive, 858.453.4100 x1703, mwhite@salk.edu