

# Plant Dehiscence Zone-Specific Promoter and Methods of Using Same

Tech ID: 19351 / UC Case 2000-009-0

## BACKGROUND

Full realization of the potential of many transgenes depends on selective expression in tissues of interest. The following describes a plant promoter isolated from *Arabidopsis thaliana* that is operative only in the dehiscence zone tissues of plants, and is suitable for driving the expression of genes desired to operate only in this tissue.

## TECHNOLOGY DESCRIPTION

A promoter has been isolated from *Arabidopsis* which upregulates transferred gene expression only in the dehiscence zone on the valve margins, and in no others, when placed upstream of a transgene in a construct of interest. The promoter can also be used to identify and recover orthologues in plant species of interest.

## ADVANTAGES

This promoter may have value in the expression of genes intended to control seed pod shatter

## STATE OF DEVELOPMENT

Dehiscence zone-specific expression driven by this promoter has now been demonstrated in one species other than *Arabidopsis*.

## ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Use of AGL1 I Gene to Suppress Seed Pod Shatter in Commercially Important Plants](#)
- ▶ [Control Premature Seed-Pod Breakage in Crop Species](#)
- ▶ [Improved Pod Shattering and Controlled Seed Release Properties](#)

## CONTACT

University of California, San Diego  
Office of Innovation and  
Commercialization  
[innovation@ucsd.edu](mailto:innovation@ucsd.edu)  
tel: 858.534.5815.



## INVENTORS

- ▶ Yanofsky, Martin F.

## OTHER INFORMATION

### CATEGORIZED AS

- ▶ [Agriculture & Animal Science](#)
- ▶ [Plant Traits](#)

### RELATED CASES

2000-009-0