

# DNA:GST-AtNOS1 Plasmid

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## TECHNOLOGY DESCRIPTION

UC San Diego inventors have identified and cloned a nitric oxide (NO) synthase gene from plants, AtNOS1, which has been shown to play a role in plant growth, stomatal movement, hormonal signaling and fertility. The protein was expressed in bacteria as a fusion protein with glutathione-S-transferase (GST-AtNOS1), purified and assayed. The inventors were able to show that extracts from bacteria expressing the fusion protein had higher levels of NOS activity. It is particularly interesting that this gene in plants has been known, but never isolated.

## APPLICATIONS

Agriculture companies may be interested in obtaining the plasmid for genetic manipulation of their plants to enhance leaf greening and growth, and regulation of stomatal opening and closure. In addition, basic researchers might want antibodies made against the specific plant nitric oxide synthase.

## CONTACT

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



## OTHER INFORMATION

### CATEGORIZED AS

- **Agriculture & Animal Science**
  - Transgenics
- **Medical**
  - Disease: Digestive System
  - Disease: Metabolic/Endocrinology
  - Other
- **Research Tools**
  - Nucleic Acids/DNA/RNA

### RELATED CASES

2004-143-0