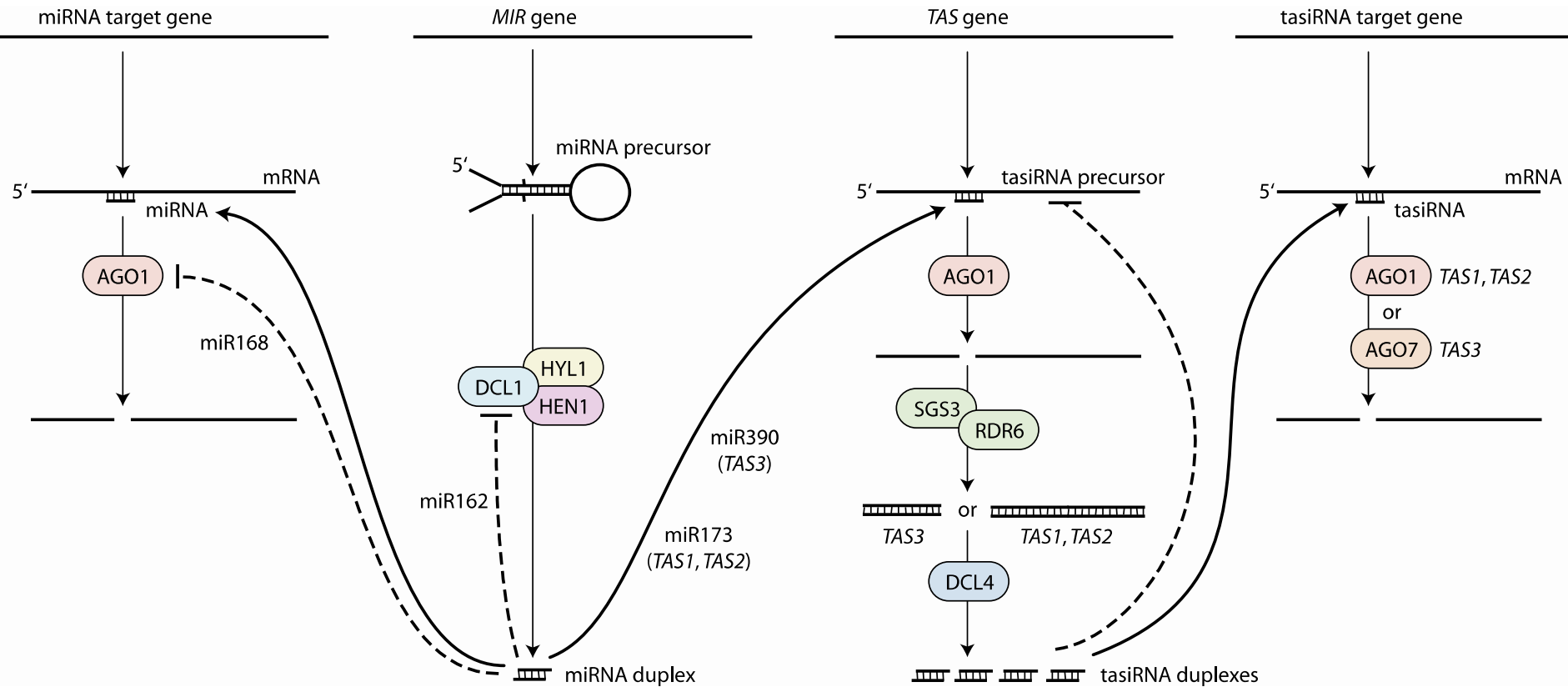


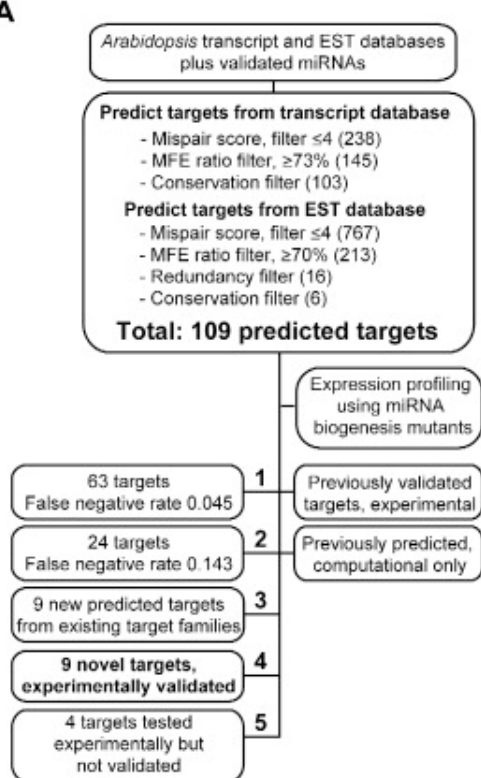
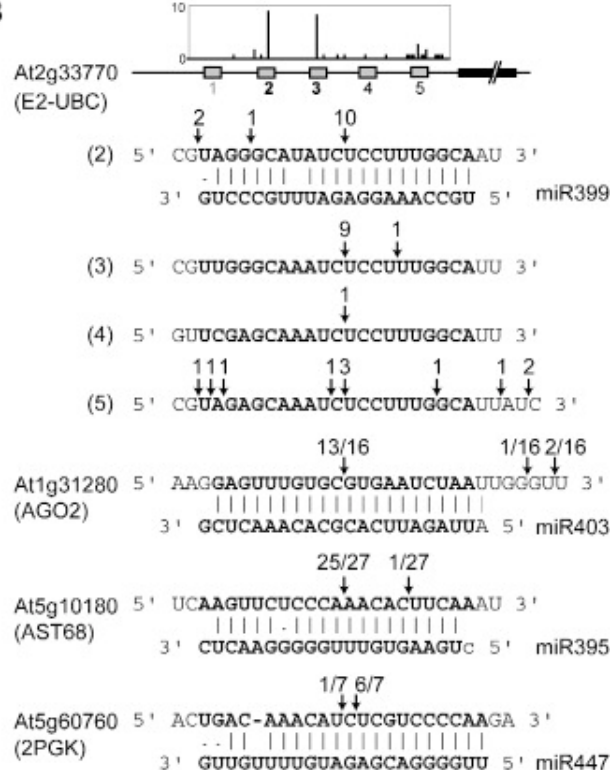
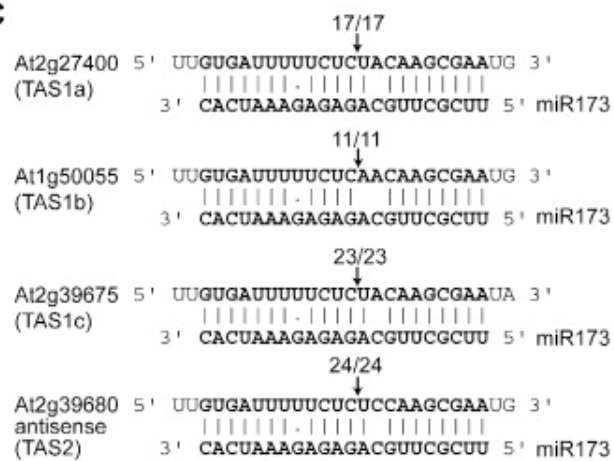
Trans acting-siRNA (ta-siRNA)

- **Hervé Vaucheret (2005) MicroRNA-Dependent Trans-Acting siRNA Production. Science pe43**

## PERSPECTIVE



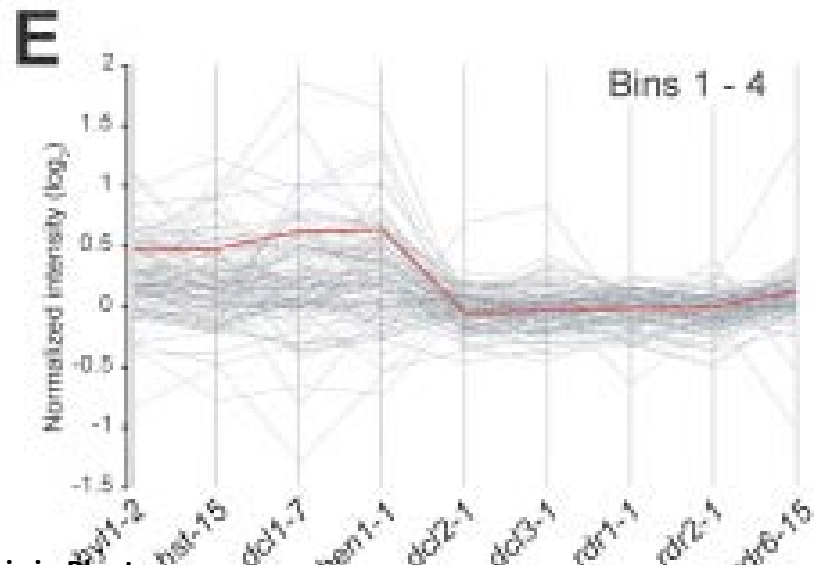
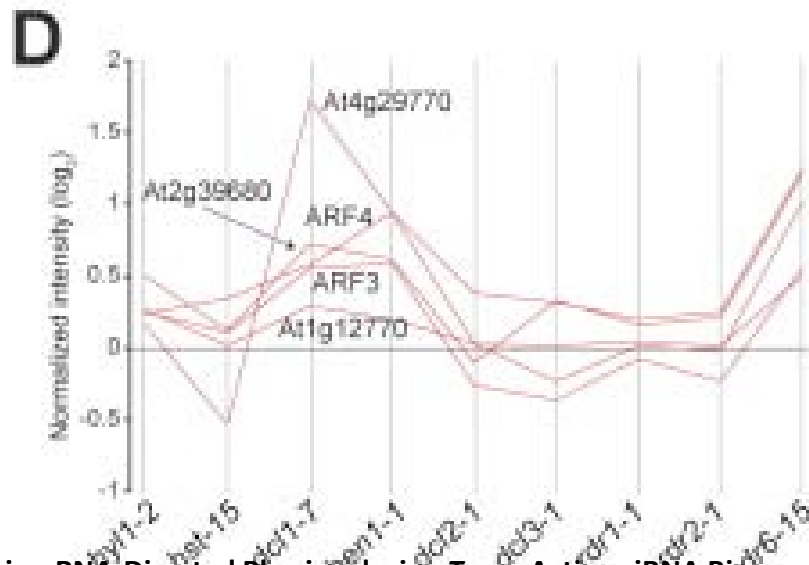
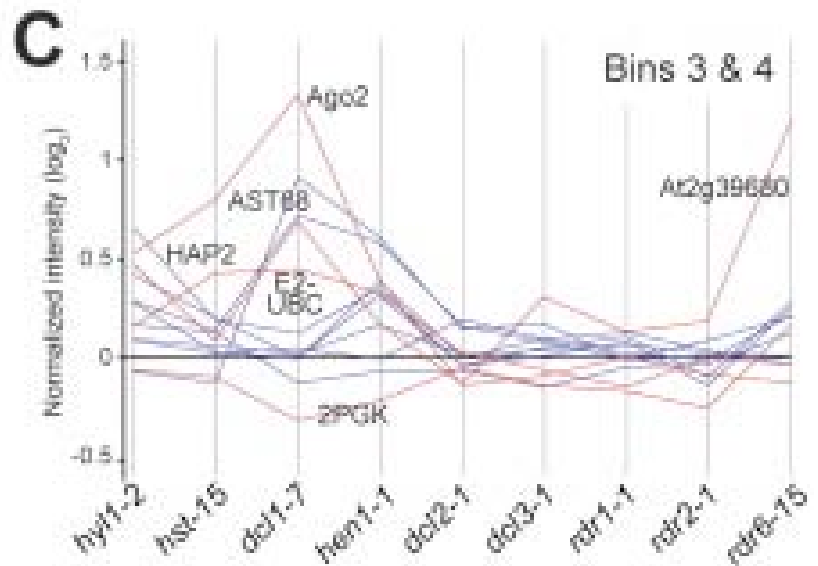
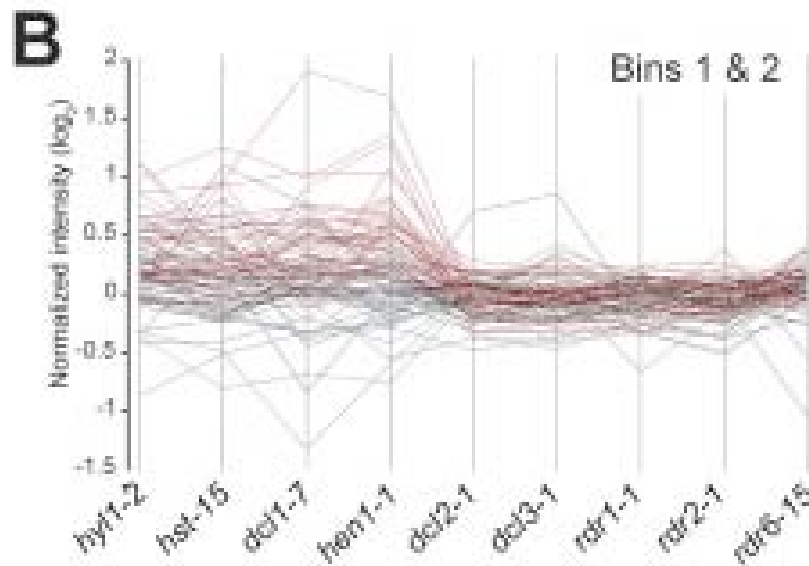
- **microRNA-Directed Phasing during *Trans-Acting* siRNA Biogenesis in Plants**
- Edwards Allen<sup>[1](#), [2](#)</sup>, Zhixin Xie<sup>[1](#), [2](#)</sup>, Adam M. Gustafson<sup>[1](#), [2](#)</sup>, James C. Carrington<sup>[1](#), [2](#)</sup>, *Cell* 2005, 121: 207-221

**A****B****C**

### microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants

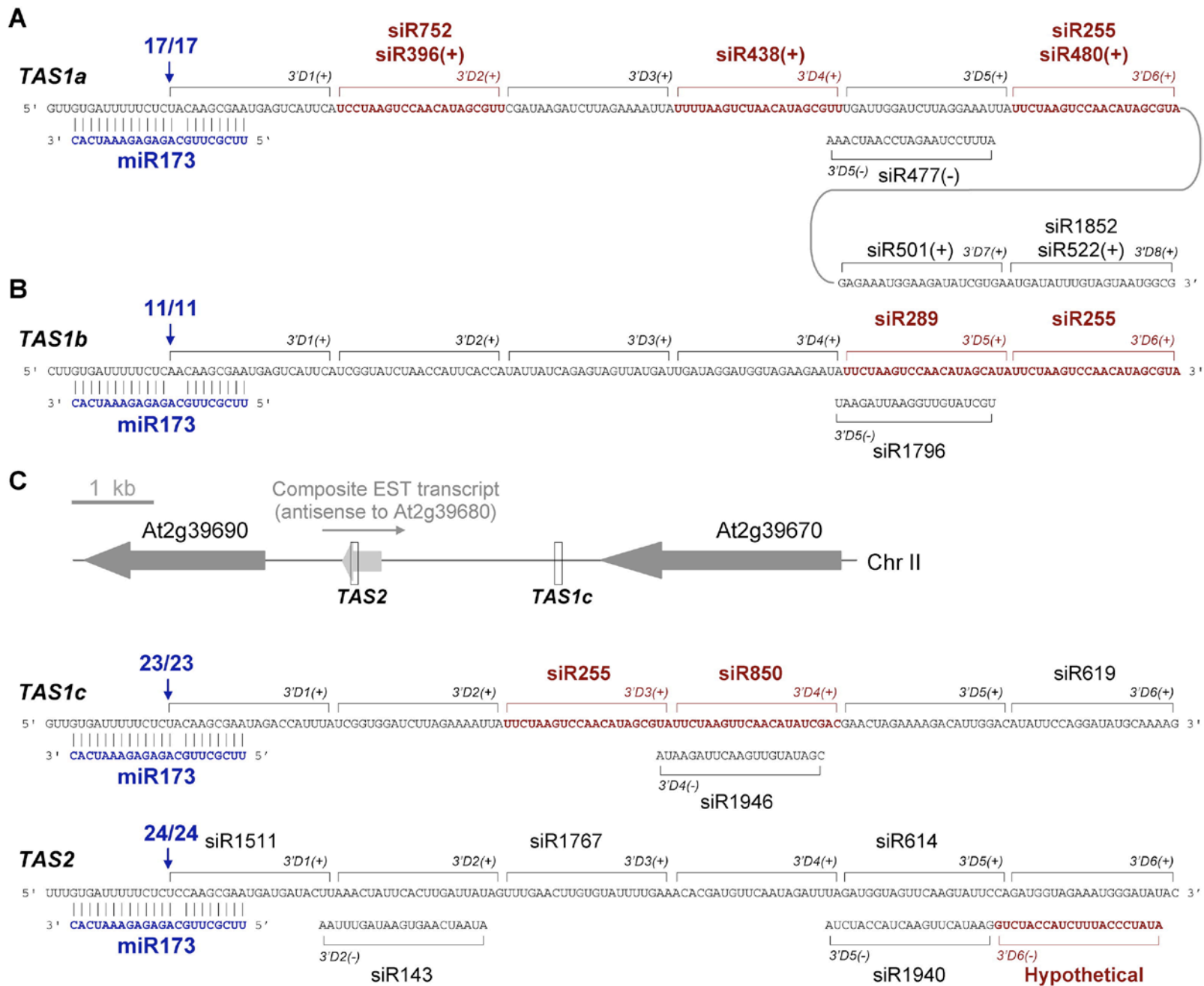
Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,4</sup>, James C. Carrington<sup>1,2</sup>, Cell 2005, 121: 207-221





microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants

Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup> Cell 2005, 121: 207-221

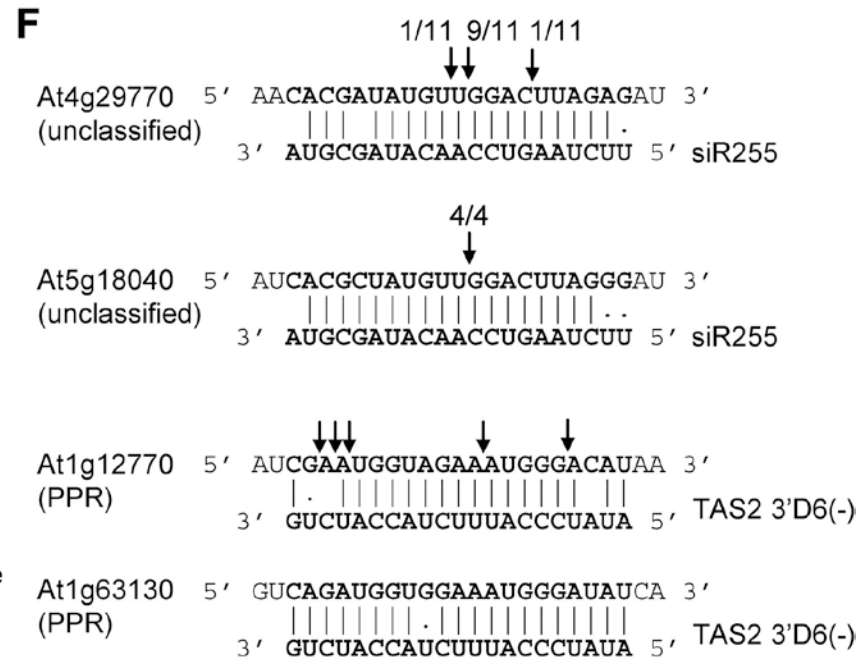
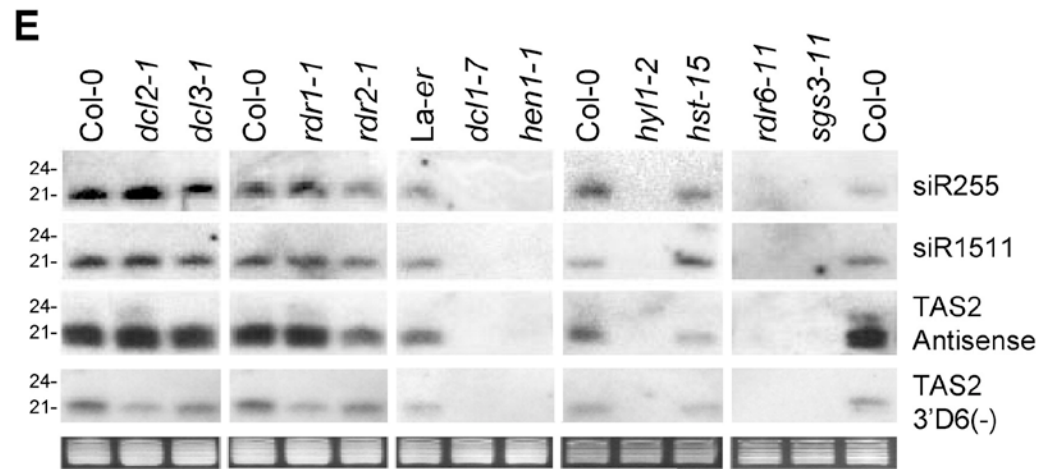


### microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants

Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup>, Cell 2005, 121: 207-221

**D**

siR255	5'	UUCUAAGUCCAACAUAGCGUA	3'
siR289	5'	UUCUAAGUCCAACAUAGCAUA	3'
siR752	5'	UCCUAAGUCCAACAUAGCGUU	3'
siR438 (+)	5'	UUUUAAGUCUAACAUAGCGUU	3'
siR850	5'	UUCUAAGUUCAACAUUCGAC	3'
		*   *****   *****   *	



**microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants**

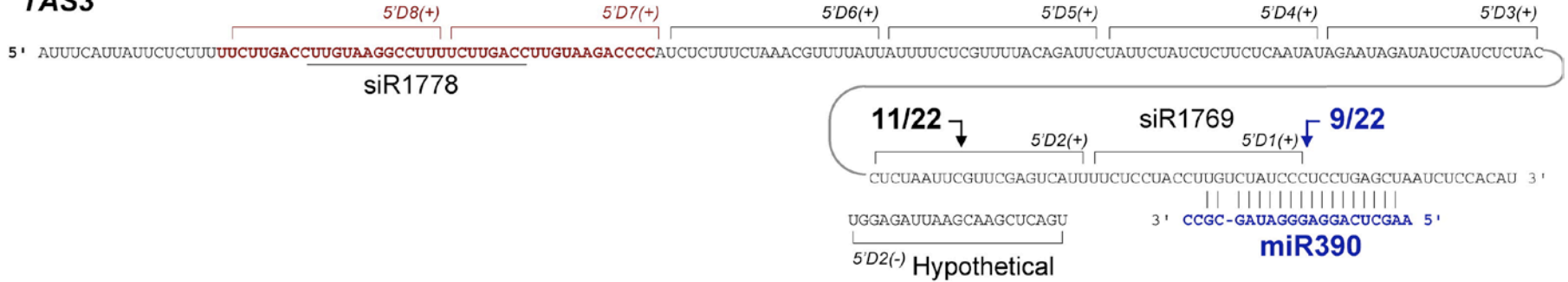
Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup>, Cell 2005, 121: 207-221

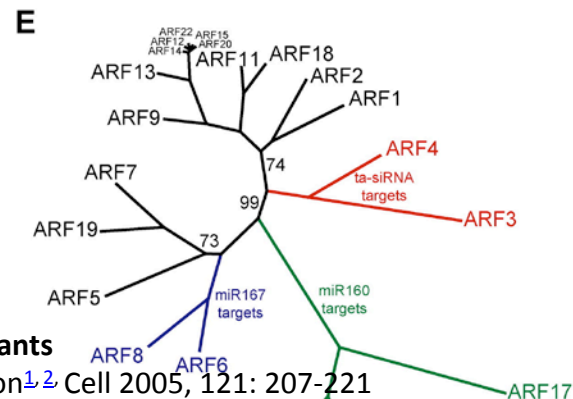
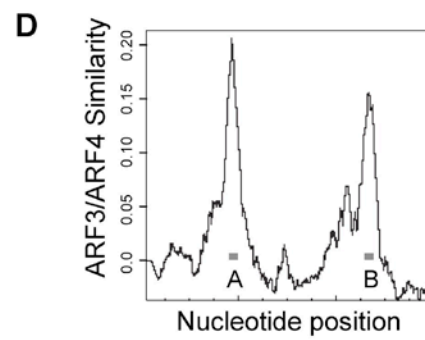
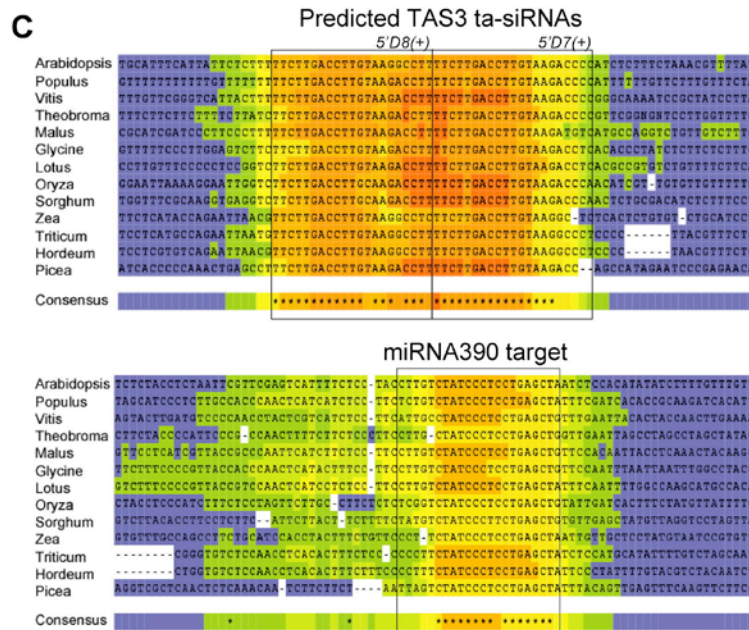


**A**

**TAS3**

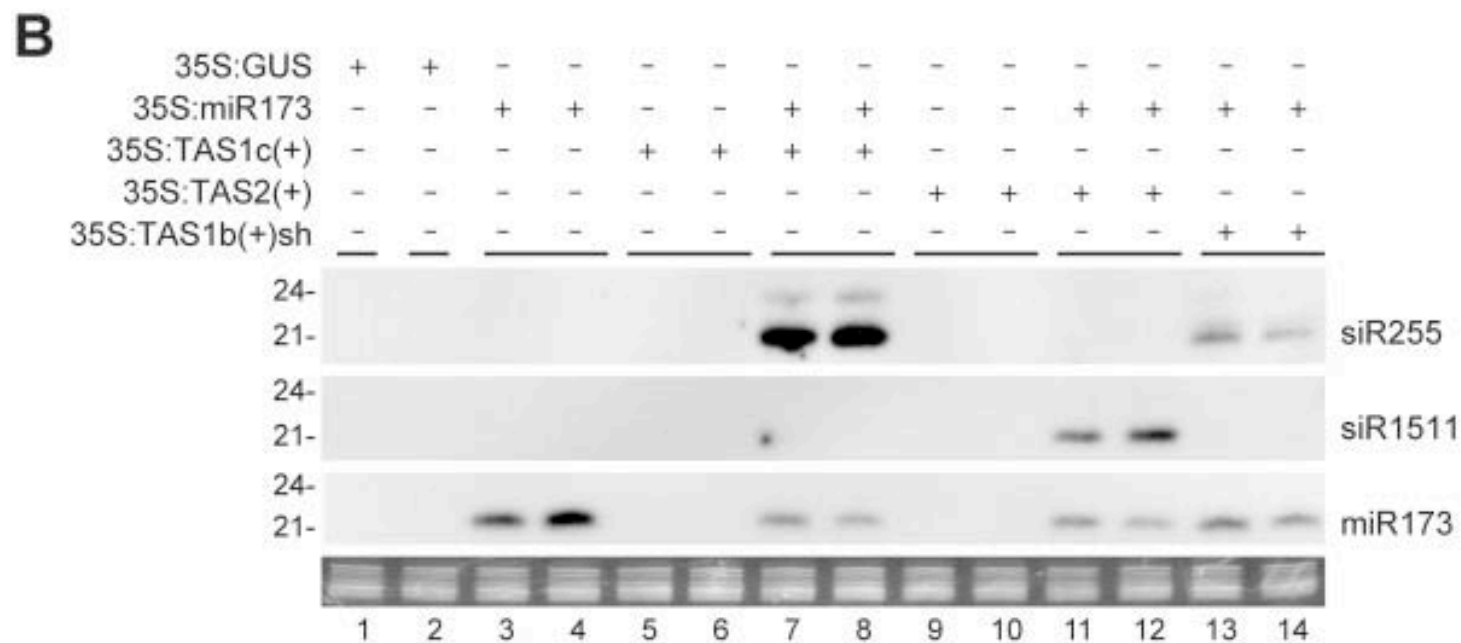
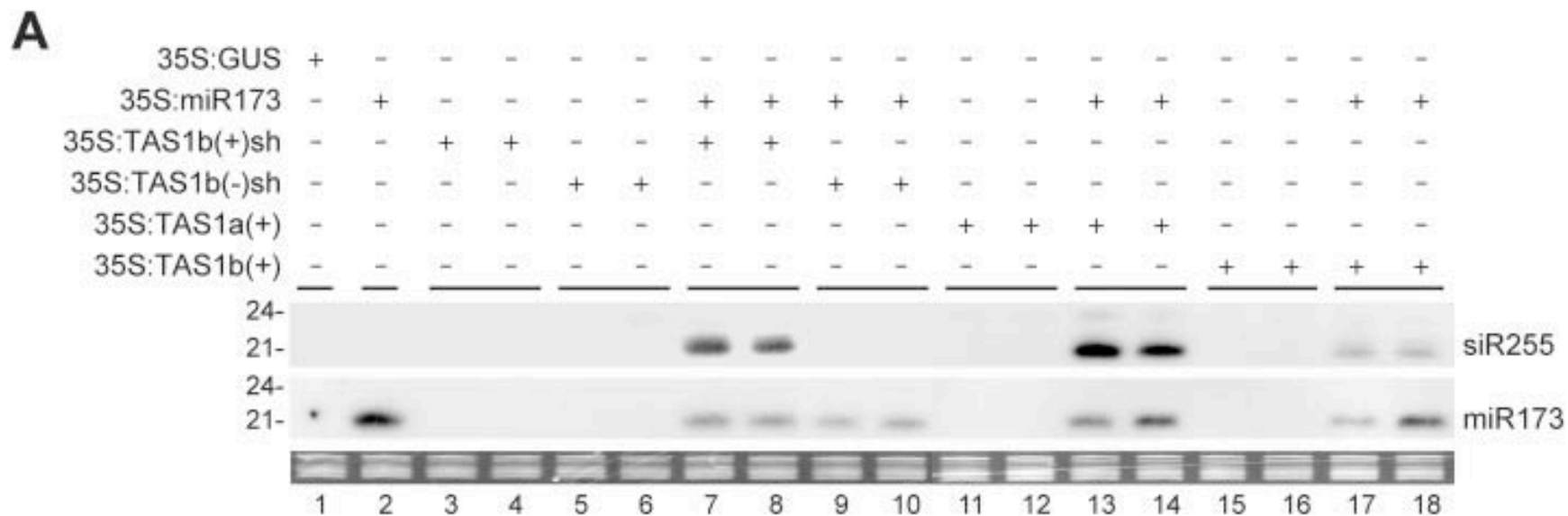
**Predicted TAS3 ta-siRNAs**





## microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants

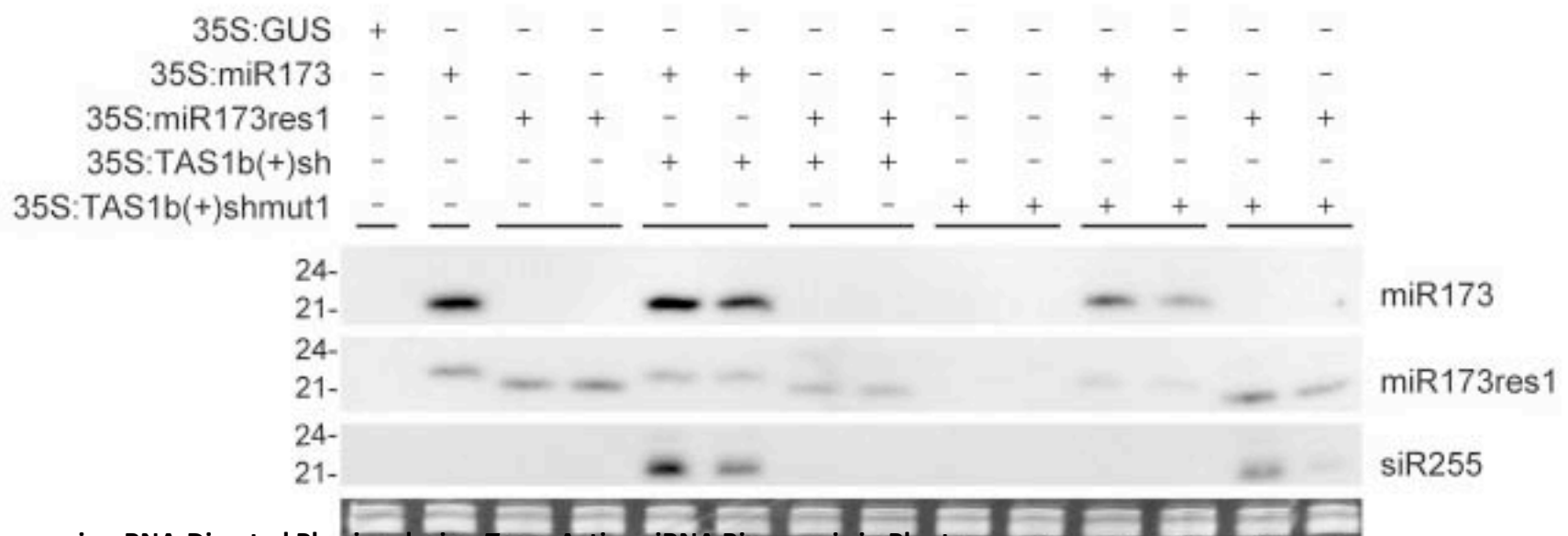
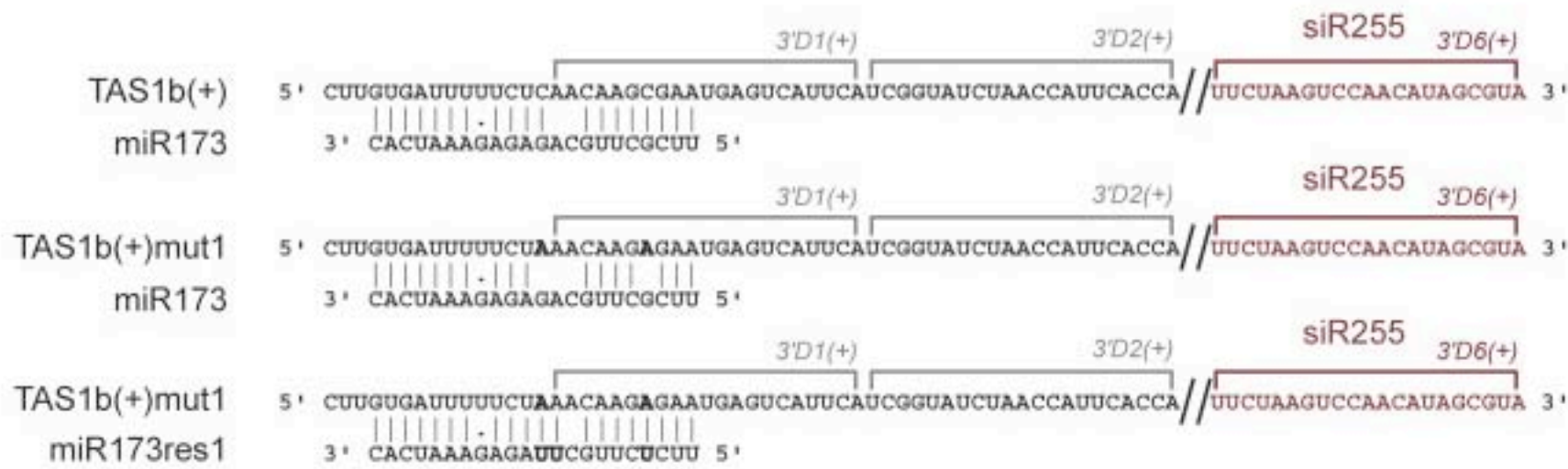
Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup>, Cell 2005, 121: 207-221



**microRNA-Directed Phasing during *Trans*-Acting siRNA Biogenesis in Plants**

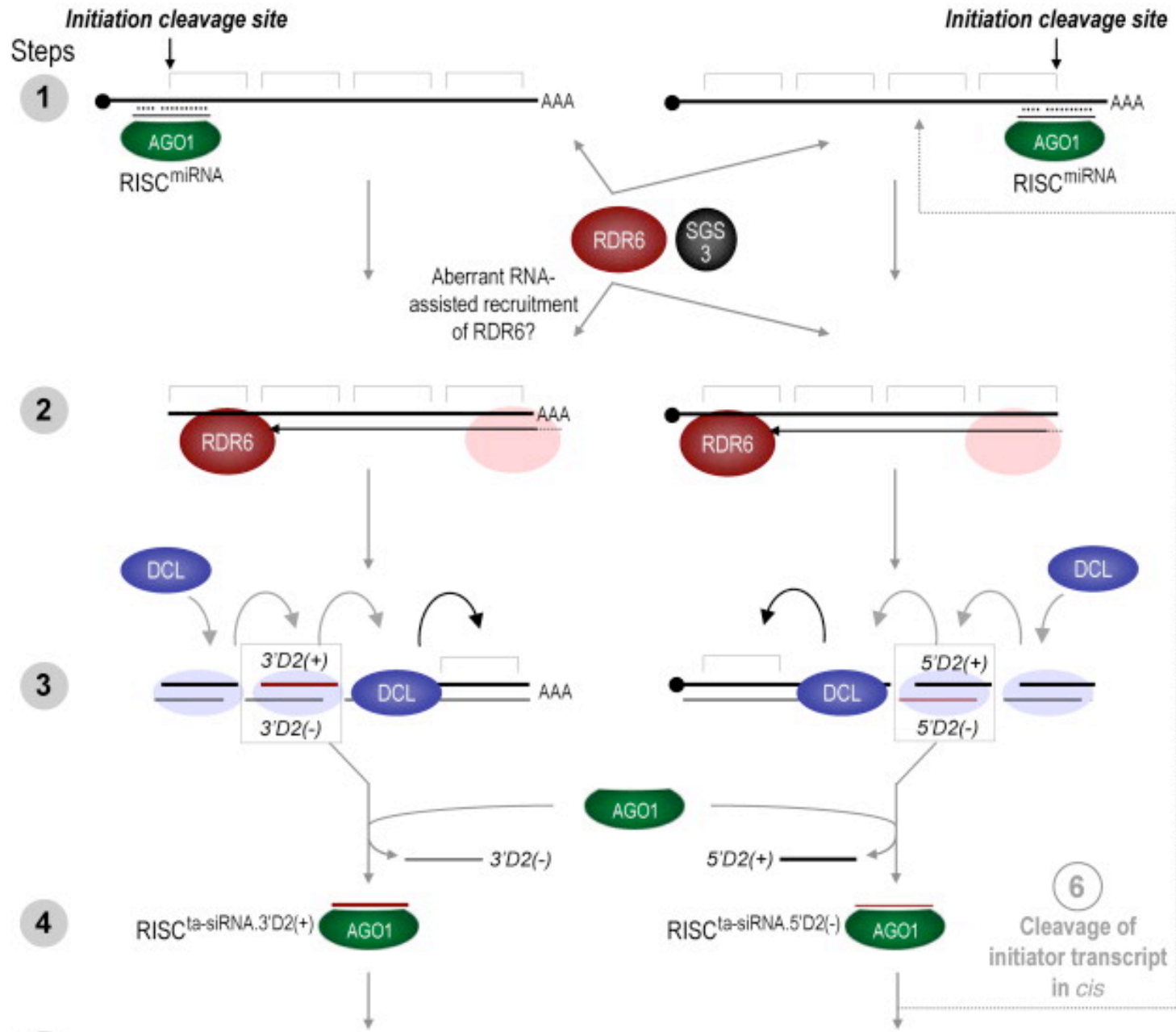
Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup> Cell 2005, 121: 207-221

**C**



## ta-siRNA Formation by 5' Initiation

## ta-siRNA Formation by 3' Initiation



microRNA-Directed Phasing during *Trans* Acting siRNA Biogenesis in Plants

Edwards Allen<sup>1,2</sup>, Zhixin Xie<sup>1,2</sup>, Adam M. Gustafson<sup>1,2</sup>, James C. Carrington<sup>1,2</sup>, Cell 2005, 121: 207-221

ta-siRNA-guided  
cleavage of target mRNA

ta-siRNA-guided  
cleavage of target mRNA