


Reduction of IgE binding and nonpromotion of *Aspergillus flavus* fungal growth by simultaneously silencing Ara h 2 and Ara h 6 in peanut

Chu, Ye, Faustinelli, Paola Carmen , Ramos, María Laura, Hajduch, Martin, Stevenson, Severin, Thelen, Jay J., Maleki, Soheila J., Cheng, Hsiaopo and Ozias Akins, Peggy (2008) *Reduction of IgE binding and nonpromotion of Aspergillus flavus fungal growth by simultaneously silencing Ara h 2 and Ara h 6 in peanut*. *Journal of Agricultural and Food Chemistry*, 56 (23). pp. 11225-11233. ISSN 0021-8561

El texto completo no está disponible en este repositorio.

RESUMEN

The most potent peanut allergens, Ara h 2 and Ara h 6, were silenced in transgenic plants by RNA interference. Three independent transgenic lines were recovered after microprojectile bombardment, of which two contained single, integrated copies of the transgene. The third line contained multiple copies of the transgene. Ara h 2 expression was significantly suppressed in all three lines, whereas Ara h 6 was reduced in two lines. Expression of peanut allergens Ara h 1 and Ara h 3 was not noticeably affected. Significant reduction of human IgE binding to Ara h 2 and Ara h 6 also was observed. Seed weight and germination data from transgenic and nontransgenic segregants showed no significant differences. Data collected from in vitro *Aspergillus flavus* infection indicate no significant difference in fungal growth between the transgenic lines and the nontransgenic controls. These data suggest that silencing Ara h 2 and Ara h 6 is a feasible approach to produce hypoallergenic peanut.

TIPO DE DOCUMENTO:

Artículo

DOI:

<https://doi.org/10.1021/jf802600r>

PALABRAS CLAVE:

Ara h 2. Ara h 6. *Aspergillus flavus*. Gene silencing. Peanut allergen.

TEMAS:

[S Agricultura](#) > [SB Cultura de la planta](#)

**UNIDAD
ACADÉMICA:**

Universidad Católica de Córdoba > Facultad de Ciencias
Agropecuarias