The gene of a GPI-anchoring protein a promising new target for the control of the cucurbit powdery mildew *Podosphaera xanthii*

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One of the main limitations of the cucurbit crops production is the powdery mildew disease, caused by the biotrophic fungus *Podosphaera xanthii*. An integrated management, using several strategies, is carried to control the disease but the application of fungicides is the most effective one. The problem is that *P. xanthii* has been classified by the Fungicide Resistance Action Committee (FRAC) as a pathogen with a high risk of resistance developing, in addition of the strong restrictions on the use of phytosanitary products at a European level. For this reason, new phytosanitary tools are necessary to allow a sustainable control of this devastating disease such as the use of the RNA interference (RNAi) technology. In this work, dsRNA targeting a *P. xanthii* gene, which encodes a protein that appears to be essential for the correct assembly of the fungal cell wall, was evaluated. Preliminary gene silencing results have shown a significant reduction of fungal development on melon plants suggesting that this gene may be a promising target for the control of powdery mildew of cucurbits.

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