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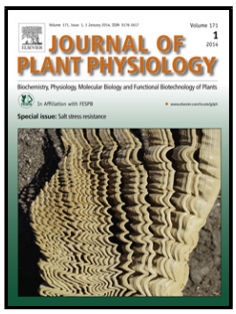

Title: A stress-associated protein, LmSAP, from the halophyte *Lobularia maritima* provides tolerance to heavy metals in tobacco through increased ROS scavenging and metal detoxification processes

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Title

A stress-associated protein, LmSAP, from the halophyte *Lobularia maritima* provides tolerance to heavy metals in tobacco through increased ROS scavenging and metal detoxification processes.

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Abstract

Agricultural soil pollution by heavy metals is a severe global ecological problem. We recently showed that overexpression of LmSAP, a member of the stress-associated protein (SAP) gene family isolated from *Lobularia maritima,* in transgenic tobacco led to enhanced tolerance to abiotic stress. In this study, we characterised the response of LmSAP transgenic tobacco plants to metal stresses (cadmium, copper, manganese, and zinc). In *L. maritima*, LmSAP expression increased