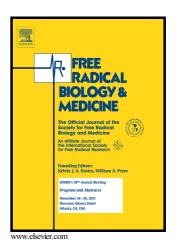
Author's Accepted Manuscript

Crosstalk between reactive oxygen species and nitric oxide in plants: key role of *S*-nitrosoglutathione reductase

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PII: S0891-5849(17)31231-5

DOI: https://doi.org/10.1016/j.freeradbiomed.2017.11.027

Reference: FRB13534

To appear in: Free Radical Biology and Medicine

Received date: 11 October 2017 Revised date: 22 November 2017 Accepted date: 29 November 2017

Cite this article as: Christian Lindermayr, Crosstalk between reactive oxygen species and nitric oxide in plants: key role of *S*-nitrosoglutathione reductase, *Free Radical Biology and Medicine*, https://doi.org/10.1016/j.freeradbiomed.2017.11.027

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ACCEPTED MANUSCRIPT

Crosstalk between reactive oxygen species and nitric oxide in plants: key role of S-nitrosoglutathione reductase

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Abstract

acts Nitric oxide (NO) acts as signaling molecule in plants being involved in diverse physiological processes such as germination, root growth, stomata closing and response to biotic and abiotic stress. S-Nitrosoglutathione (GSNO) is the storage and transport form of 'NO and has a very important function in 'NO signaling since it can transfer its 'NO moiety to other proteins (trans-nitrosylation). The level of GSNO and thus the level of S-nitrosylated proteins are regulated by GSNO-reductase (GSNOR). In this way, this enzyme regulates the S-nitrosothiol levels and plays a balancing role in fine-tuning 'NO signaling. Interestingly, oxidative post-translationally modification of GSNOR inhibited the activity of this enzyme suggesting a direct crosstalk between ROS- and RNS-signaling. In this review article the

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