

Identifying Gibberellic-Acid transport mechanisms in *Arabidopsis*

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Gibberellins (GAs) are plant hormones that promote a wide range of processes in plants and are commonly used in agriculture. While GA signaling is well understood, little is known about the process of GA transport or the regulation of GA distribution in the plant. We have utilized a unique bioactive fluorescently-labeled GAs (GA-FI) to screen for *Arabidopsis* mutants deficient in GA transport. We identified the transporter NPF3 and show that it efficiently transports GA across cell membranes both *in vitro* and *in vivo*. Expression of *NPF3* occurs in the root endodermis and is repressed by GA. NPF3 is targeted to the plasma membrane and subject to rapid BFA- dependent recycling. We show that abscisic acid (ABA), an antagonist of GA, is also transported by NPF3 *in vitro*. ABA promotes *NPF3* expression and GA-FI uptake in plants. On the basis of these results, we propose that GA distribution and activity in *Arabidopsis* is partly regulated by NPF3 acting as an influx carrier and that GA–ABA interaction may occur at the level of transport.