

Supplemental Information

A chemical genetic screen uncovers a small molecule enhancer of the *N*-acylethanolamine degrading enzyme, fatty acid amide hydrolase, in *Arabidopsis*

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6-(2-methoxyphenyl)-1,3-dimethyl-5-phenyl-1H-pyrrolo[3,4-d]pyrimidine-2,4(3H,6H)-dione (MDPD)

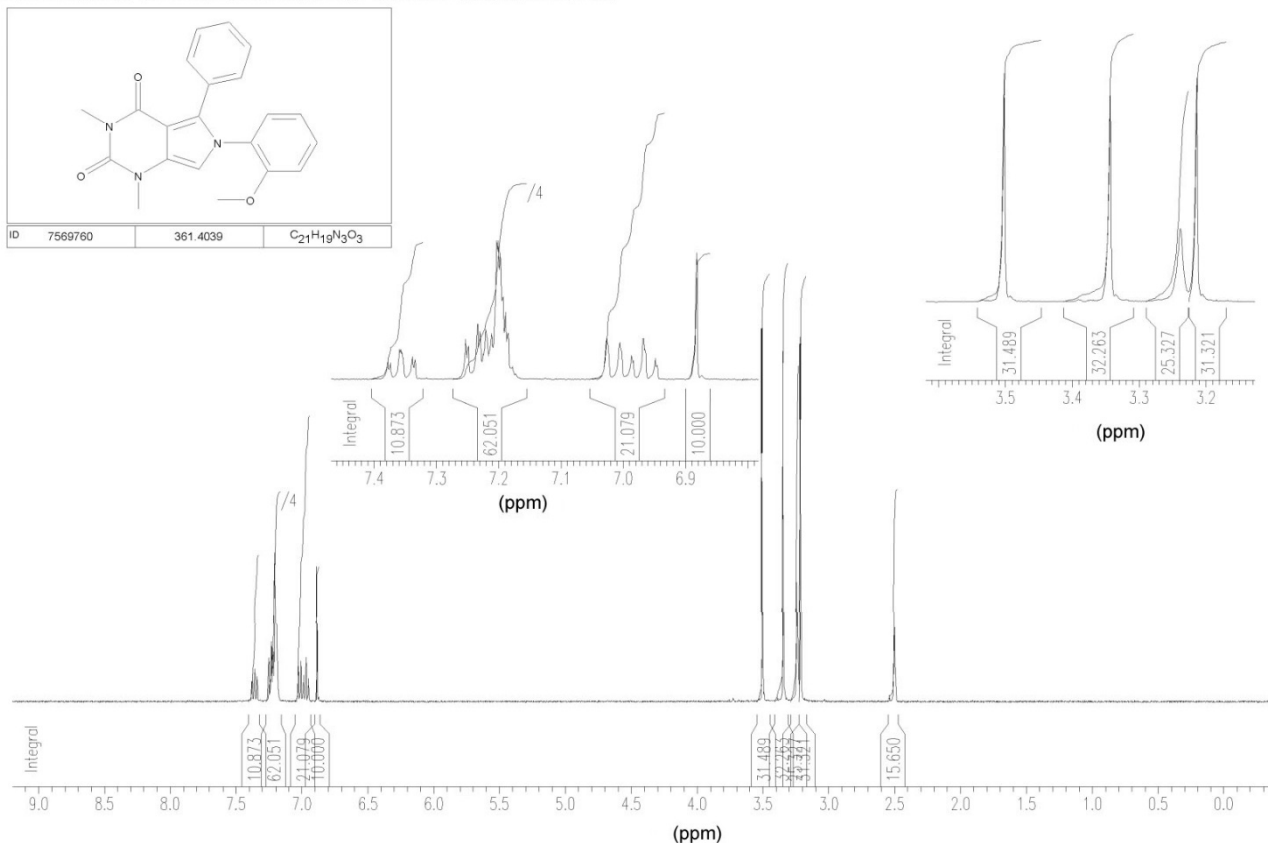


Figure S1. Analytical information demonstrating the chemical identity and purity of MDPD by Nuclear Magnetic Resonance (NMR) spectroscopy. NMR analyses indicates >90% purity of the MDPD compound used in this study. NMR spectra courtesy of ChemBridge (San Diego, CA).

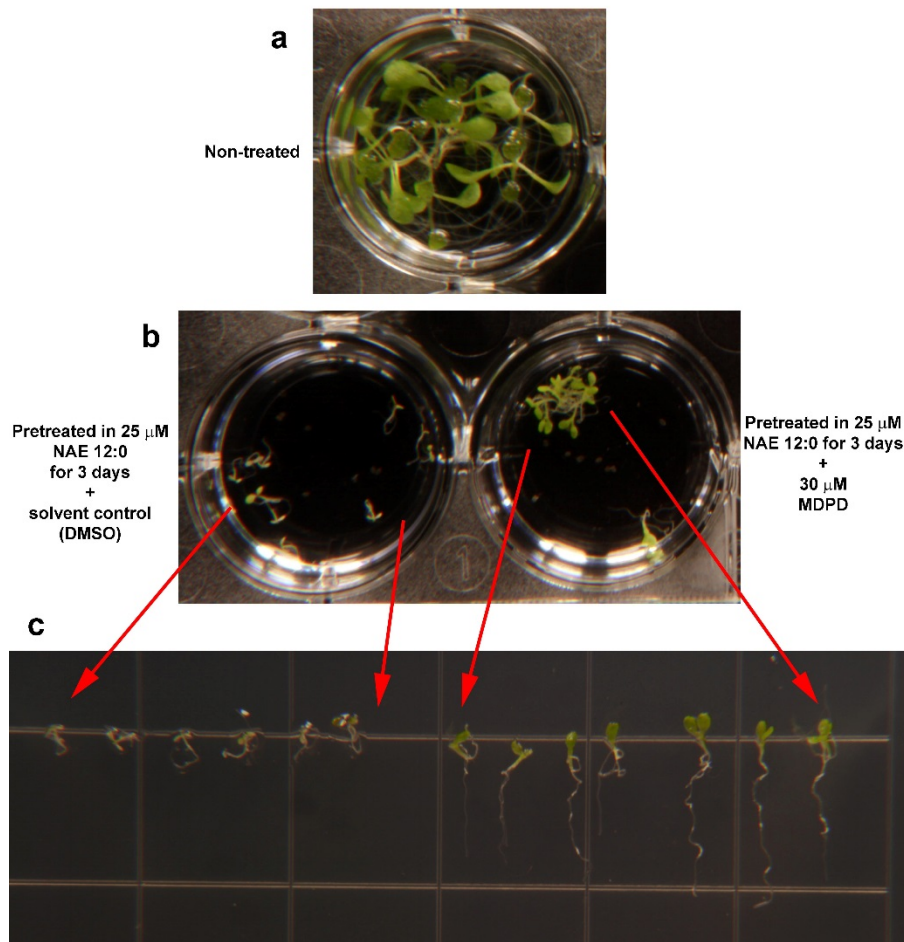


Figure S2. Effects of MDPD on wild-type *Arabidopsis* seedlings pretreated with NAE for 3 days. Wild type seedlings grown in liquid media for a total of 6 days. (a) No treatment; (b) Seedlings grown in 25 μ M NAE 12:0 for 3 d then supplemented with 30 μ M MDPD; (c) High magnification image of seedlings from (b) after transfer to solid media.

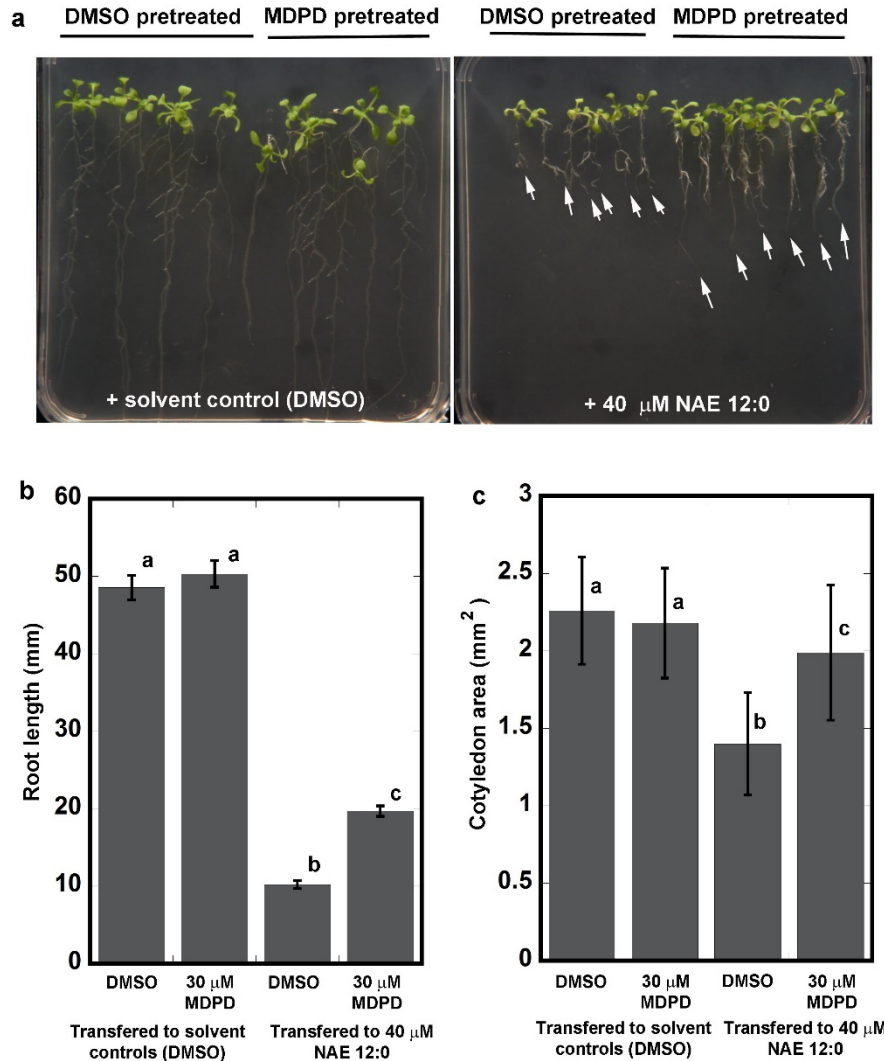


Figure S3. Effects of NAE 12:0 on seedling development after pretreatment with MDPD. Wild-type seeds were grown in 0.5% MS only media or media supplemented with 30 μ M MDPD for 3 days. Seedlings were then transferred to media with or without 40 μ M NAE 12:0. (a) Representative images of seedlings 4 days after transfer to NAE 12:0 supplemented plates. Quantification of primary root length (b) and cotyledon area (c). Note that MDPD pretreatment dampens primary root and cotyledon area growth inhibition resulting from transfer to NAE 12:0. Error bars represent the standard error of the means ($n \geq 10$). Means with different letters are significantly different ($P < 0.005$; Tukey's test).