Water uptake and distribution in germinating tobacco seeds investigated *in vivo* by nuclear magnetic resonance imaging (MRI)[1,[w]]

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Running head: NMR microimaging of tobacco seeds

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Supplementary Figure 1. Non-invasive *in vivo* NMR microimaging analyses of the effect of ßGlu I over-expression on water uptake and distribution during tobacco seed germination in medium with 10 µM ABA. The spatial distribution of water within the seed tissues is visualized by false colors (relative scales from "0" (black) to maximum signal strength "max" (white)). A scale bar is given as a size marker. The NMR microimages were obtained with ca. 30 µm resolution. **(A,B)** Each of the panels shows two-dimensional slices from full 3D NMR microimages as serial sections through three single seeds (one per row) at the given stage that corresponds to a time window presented in Fig. 6A as grey box (80-110 h). *Upper two rows of each panel:* The serial microimages correspond to longitudinal sections with the orientation: radicle at the bottom, shoot at the top. *Lower row of each panel:* The serial microimages correspond more or less to transverse sections. **(A)** TKSG7 (ßGlu I over-expressing) seeds. **(B)** TCIB1 ("empty-vector control") seeds. Small white arrows indicate the micropylar endosperm (A,B). **(C, D)** Enlarged view of selected NMR microimages of TKSG7 (C) and TCIB1 (D) corresponding to slices presented in (A) and (B), respectively. The small numbers designate the corresponding slices.

Supplementary Figure 1 (S1) Manz et al. 2005