

Supplemental Table S3: Reproducible phenotypic effect of RNAi constructs targeting four candidate genes.

RNAi target	Series ^b	DsRed-fluorescent cells (normalized to control) ^a			Ratio ^e	t-test Ratio ^f
		pIPKTA30 ^c	RNAi-test constr.	t-test ^d		
HvDRF1	1	0,813±0,074	0,526±0,057	0,003	0,650±0,043	0,001
HvDRF1	2	0,985±0,137	0,731±0,068	0,053	0,763±0,055	0,012
HvDRF1	both	0,899±0,079	0,629±0,054	0,0004	0,706±0,038	<0,0001
HvDhn6	1	1,041±0,125	0,808±0,075	0,031	0,787±0,046	0,010
HvDhn6	2	0,856±0,046	0,670±0,024	0,002	0,786±0,021	0,001
HvDhn6	both	0,949±0,070	0,739±0,044	0,0003	0,786±0,024	<0,0001
HvHVA1	1	1,041±0,125	0,658±0,053	0,065	0,669±0,096	0,026
HvHVA1	2	0,856±0,046	0,636±0,030	0,004	0,747±0,035	0,002
HvHVA1	both	0,949±0,070	0,647±0,029	0,004	0,708±0,050	<0,0001
HvNHX1	1	1,041±0,125	0,842±0,098	0,041	0,813±0,052	0,023
HvNHX1	2	0,856±0,046	0,666±0,028	0,004	0,782±0,027	0,001
HvNHX1	both	0,949±0,070	0,754±0,056	0,0003	0,797±0,028	<0,0001

^aControl, non-stressed leaf segments.

^bEach series comprised five independent experiments. Values represent mean ± SEM.

^cEmpty RNAi vector.

^dPaired two-sample *t*-test, two-sided.

^eRatio of the normalized number of DsRed-fluorescent cells in dehydration-stressed leaves after bombardment with RNAi-test construct *versus* the empty-vector control (column 4/column 3).

^fOne-sample *t*-test against hypothetical value “1”, two-sided.

Supplemental Table S4: Relation between relative fresh weight and relative water content of bombarded barley leaf segments.

	Control ^a	Dehydrated ^b
RFW ^c after 4 days	101.3 ± 0.22 ^e	69.8 ± 1.3 ^e
RWC ^d after 4 days	97.0 ± 0.1 ^e	60.1 ± 0.5 ^e

^aLeaf segments incubated on 0.5% water Phytoagar during four days in closed petri dishes.

^bLeaf segments dehydrated to 60% RFW and incubated on moist paper during four days in closed petri dishes.

^cRelative fresh weight (%) = $(FW_{4d}/FW_{initial}) \times 100$.

^dRelative water content (%) = $(FW_{4d}-DW)/(TW-DW) \times 100$; DW, dry weight after drying leaf segments for 24 h at 65°C; TW, turgid weight after incubation of leaf segments on water during 24 h at 20°C.

^eMean ± SEM of five bombardments with pGFP, pUbiDsRed-nos and pIPKTA30N empty RNAi vector.