

## Supplementary table

(1) Gene copy number data (yellow highlighted cells indicate barley lines used in the manuscript)

Sample	Copies_Hyg
HvEPF1OE- (0.6%)	5
HvEPF1 OE- (47%)	1
HvEPF1 OE-1	1
HvEPF1 OE-2	1

(2) Gene primers

Gene	Forward	Reverse
Hygromycin	ACTCACCGCGACGTCTG	GCGCGTCTGCTGCTCCATA.
Hv GAPDH	GTGAGGCTGGTGCTGATT	CGTGGTGCAGCTAGCATTGAGAC
Hv Tubulin	AGTGCCTGTCCACCCACTC	AGCATGAAGTGGATCCTTGG
HvEPF1 (qPCR)	GTGGAGGAGAAGAAGGATGG	ATGGAGCACTGAAGCTGAC
HvEPF1 (vector construction)	CACCATGAAGAGGCACGGTCTT	CTAGCTGGAGGGGACGGGGT