

Description of additional supplementary items

All 5 supplementary data files are included in the Excel file.

- Supplementary Data 1:** Elite 2-row spring cultivars included in GWAS and sequenced for *HvHKT1;5*
- Supplementary Data 2:** Gene models in region identified on 4H as being significantly associated with grain Na⁺ content
- Supplementary Data 3:** *H. spontaneum* and *H. vulgare* landrace *HvHKT1;5* genotypic data
- Supplementary Data 4:** Primers used for Sanger sequencing, qPCR and In-situ.
- Supplementary Data 5:** Na⁺ contents of 5th leaf material from 0mM, 150mM and 250mM NaCl treated plants.