

## Figure S2. *GLN1;2* and *GLT1* response to ammonium is caused by glutamine or post-glutamine metabolites

Two-week-old Arabidopsis plants (accession Col-0) grown on MGRL agar media were subjected to nitrogen starvation for 3 days prior to the treatment. Pre-cultured plants were treated for 6 hours on modified MGRL media without nitrogen, or with 10 mM ammonium ( $NH_4^+$ ) or with 5 mM glutamine as the sole nitrogen source, and with or without 5 mM methionine sulfoximine (MSX) as a GS inhibitor. Gene expression levels were quantified by qPCR for *GLN1;2* (a, cyan column), *NADH-GOGAT* (b, *GLT1*, magenta column), *Fd-GOGAT2* (c, *GLU2*, yellow column), and *UBQ2* as the internal control (d, black column). One-way ANOVA analysis was performed and followed by Bonferroni as post-hoc. Letters denote statistically significant differences between the treatment groups and no nitrogen control.