with covariates 50 100 200 0.5 0.4 1\_2\_1 0.3 0.2 4 method  $\triangle$ + 0.1 Q Δ 0.0 CARseq 0.5 sensitivity 0.4 0.3 0.2 CIBERSORTx\_w/\_B\_mode  $\Delta$ 8 4 CIBERSORTx\_w/o\_B\_mode  $\triangle$ + 0.1 0.0 TOAST\_count 0.5 TOAST\_TPM  $\triangle$ 0.4 0.3 0  $\Delta$ 0.2 -△ + 0.1 -0.0 0.00 0.75 0.00 0.75 1.00 0.00 0.50 0.75 1.00 0.25 0.50 1.00 0.25 0.50 0.25 fdr without covariates 50 100 200 0.4 0.3 \_2\_1 0.2 method  $\Delta$ 0.1  $\triangle$ + 8 **∞** +△ CARseq 0.0 sensitivity 0.3 0.2 0.1 CIBERSORTx\_w/\_B\_mode 0  $\Delta +$ ال CIBERSORTx\_w/o\_B\_mode **Q** X ∀  $\triangle$  +TOAST\_count 0.0 TOAST\_TPM Δ 0.4 0.3 1\_4\_1 csSAM 0 **♦** 0.2 Δ + 0.1 -0.0 0.00 0.00 0.00 0.25 0.50 0.75 1.00 0.25 0.50 0.75 1.00 0.25 0.50 0.75 1.00 fdr