

ESI 5. Enriched go-terms among the significantly expressed genes between two strains in response to interaction effect.

INTERACTION EFFECT		Enriched GO-Biological Process Terms	
		Copper Deficient Conditions	High Copper Conditions
UP	CCC2Δ/ CCC2Δ vs Reference strain	Iron ion homeostasis (p-val ≤ 3.89e-4) Siderophore transport (p-val ≤ 1.30e-6) Arginine metabolic process (p-val ≤ 3.94e-2) Cellular keton metabolic process (p-val ≤ 1.99e-2) Drug membrane transport (p-val ≤ 1.68e-2) Urea (p-val ≤ 1.68e-2) and ornithine (p-val ≤ 2.68e-2) metabolic process "de novo" NAD biosynthetic process from tryptophan (p-val ≤ 1.91e-2) "de novo" UMP biosynthetic process (p-val ≤ 3.94e-2) Allantoin (p-val ≤ 2.55e-2) and pyridoxal phosphate (p-val ≤ 3.06e-2) metabolic process	
DOWN		Glucose transport (p-val ≤ 3.65e-2) Polyphosphate metabolic process (p-val ≤ 3.65e-2) Ribosome biogenesis (p-val ≤ 3.65e-2)	Iron ion homeostasis (p-val ≤ 8.58e-3) Siderophore transport (p-val ≤ 1.5e-3) "de novo" NAD biosynthetic process from tryptophan (p-val ≤ 1.04e-3) Purine ribonucleoside triphosphate biosynthetic process (p-val ≤ 2.41e-2) Oxidation reduction process (p-val ≤ 3.51e-2)