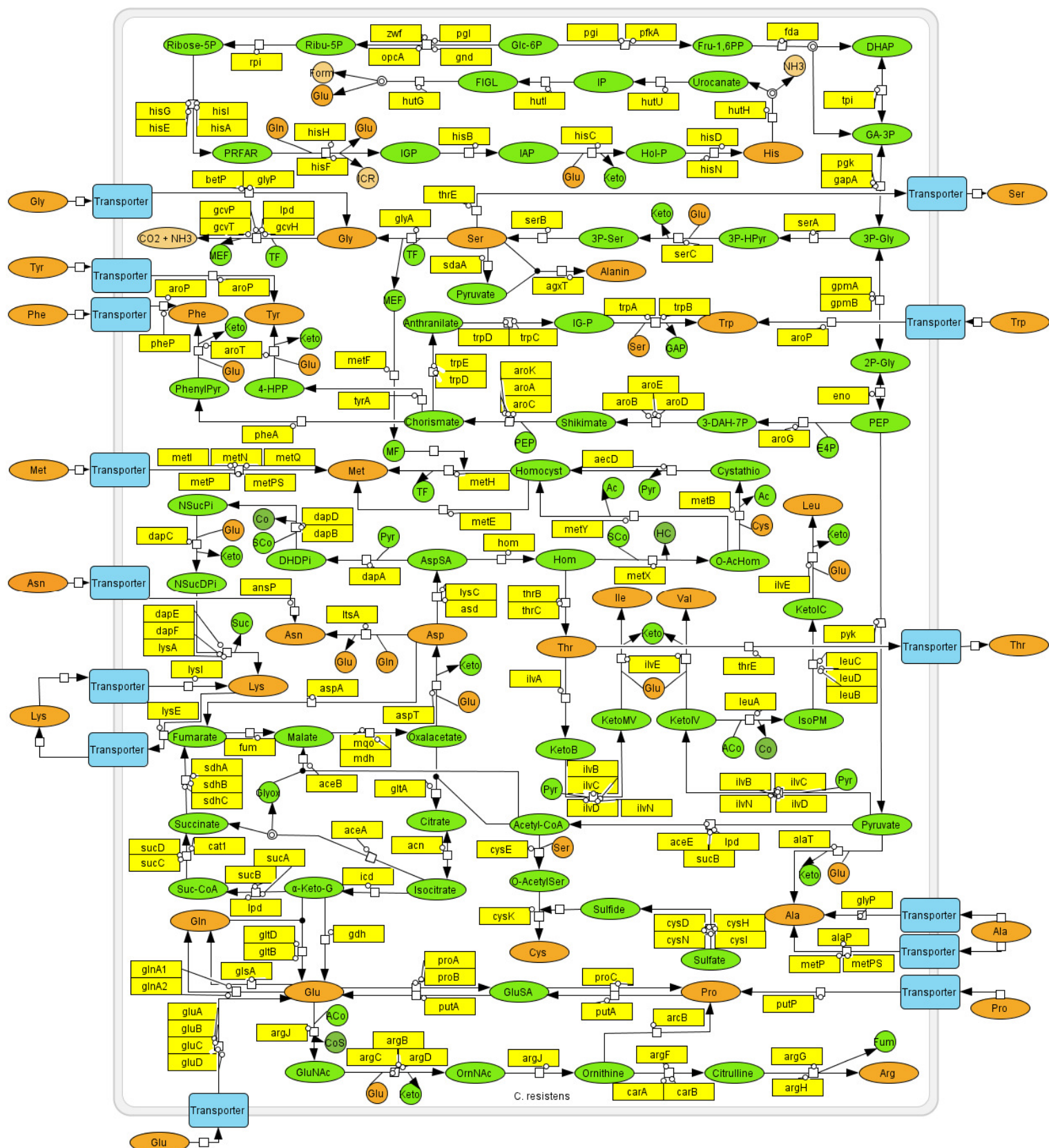




Additional file 2 Reconstruction of pathways involved in amino acid metabolism of *C. resistens* DSM 45100. The metabolic reconstruction was performed with manually curated pathway maps in conjunction with the bioinformatic tool CARMEN and the CellDesigner software. Metabolites are represented in ovals, mature amino acids are colored in orange. Corresponding genes are displayed in yellow boxes. Abbreviations for metabolites are as follows: Ac, acetate; ACo, acetyl-Coenzyme A; Ala, alanine; Arg, arginine; Asn, asparagine; Asp, aspartic acid; AspSA, aspartate semialdehyde; CoA/CoASH, Coenzyme A; Cys, cysteine; Cystathio, L,L-cystathionine; DHAP, dihydroxyacetone phosphate; DHDPi, dihydrodipicolinate; FIGL, formimino-glutamate; Fru-1,6PP, fructose-1,6-bisphosphate; Fum, fumarate; GA-3P/GAP, glyceraldehyde-3-phosphate; Glc-6P, glucose-6-phosphate; Gln, glutamine; Glu, glutamic acid; GluNAc, N-acetylglutamate; GluSA, γ -glutamic semialdehyde; Gly, glycine; Glyox, glyoxalate; His, histidine; Hol-P, L-histidinol phosphate; Hom, homoserine; Homocyst, homocysteine; IAP, imidazole acetol phosphate; IGP, imidazole glycerol phosphate; IG-P, indole glycerol phosphate; Ile, isoleucine; IP, imidazolone propionate; IsoPM, α -isopropylmalate; KetoB, α -ketobutyrate; KetoIC, α -ketoisocaproate; KetoIV, α -ketoisovalerate; KetoMV, α -keto- β -methylvalerate; Leu, leucine; Lys, lysine; Met, methionine; NSucDPi, N-succinyldiaminopimelate; NSucPi, N-succinyl- α -amino- ϵ -keto-pimelate; O-AcetylSer, O-acetylserine; O-AcHom, O-succinylhomoserine; OrnNAc, N-acetylornithine; PEP, phosphoenolpyruvate; Phe, phenylalanine; Phenylpyr, phenylpyruvate; PRFAR, phosphoribosyl formimino-5-aminoimidazole-4-carboxamide ribonucleotide; Pro, proline; Pyr, pyruvate; Ribose-5P, ribose-5-phosphate; Ribu-5P, ribulose-5-phosphate; Ser, serine; Suc-CoA/SCo, succinyl-Coenzyme A; Thr, threonine; Trp, tryptophan; Tyr, tyrosine; Val, valine; 2P-Gly, 2-phosphoglycerate; 3-DAH-7P, 3-deoxy-D-arabino-heptulosonate-7-phosphate; 3P-HPyr, 3-phosphohydroxypyruvate; 3P-Gly, 3-phosphoglycerate; 3P-Ser, 3-phosphoserine; 4-HPP, 4-hydroxyphenylpyruvate; α -keto-G/Keto, α -ketoglutarate.