CS, CS_reverse, MS, MS_reverse, ACN, ACN_reverse, FUM, FUM_reverse, ICD, ICD_reverse, ICL, ICL_reverse, KDH, KDH_reverse, SDH, SDH_reverse, SYN, SYN_reverse, ScAS, ScAS_reverse OP: akg, biosyn, cit, fa, icit, mal, oaa, sca, suc {aca, akg, biosyn, cit, coa, fa, gly, icit, mal, oaa, sca, suc}

ACN, ACN_reverse, FUM, FUM_reverse, ICD, ICD_reverse, ICL, ICL_reverse, KDH, KDH_reverse, MDH, MDH_reverse, SDH, SDH_reverse, SYN, SYN_reverse, ScAS, ScAS_reverse OP: gly species: akg, biosyn, cit, fa, gly, icit, mal, oaa, sca, suc {akg, biosyn, cit, fa, gly, icit, mal, oaa, sca, suc}

species: {}