Table S1. Principal reactions of subnetwork 49 inferred from the mammalian dataset.

Reaction	Reactant	
No.	Numbers	Pathway
R00811	$\underline{\text{C00089}} + \underline{\text{C04261}} \iff \underline{\text{C16688}} + \underline{\text{C00615}}$	Starch and sucrose metabolism
R02630	$\underline{\text{C04261}} + \underline{\text{C00159}} \iff \underline{\text{C00615}} + \underline{\text{C00275}}$	Fructose and mannose metabolism
		Amino sugar and nucleotide sugar metabolism
R02631	$\underline{\text{C04261}} + \underline{\text{C00329}} \iff \underline{\text{C00615}} + \underline{\text{C00352}}$	Amino sugar and nucleotide sugar metabolism
R02704	$\underline{\text{C04261}} + \underline{\text{C00392}} \iff \underline{\text{C00615}} + \underline{\text{C00644}}$	Fructose and mannose metabolism
R02738	$\underline{\text{C04261}} + \underline{\text{C00031}} \iff \underline{\text{C00615}} + \underline{\text{C00668}}$	Glycolysis / Gluconeogenesis
		Amino sugar and nucleotide sugar metabolism
R02780	$\underline{\text{C01083}} + \underline{\text{C04261}} \iff \underline{\text{C00689}} + \underline{\text{C00615}}$	Starch and sucrose metabolism
R03076	$\underline{\text{C04261}} + \underline{\text{C11477}} \iff \underline{\text{C00615}} + \underline{\text{C00934}}$	general reaction
R03232	$\underline{\text{C04261}} + \underline{\text{C00095}} \iff \underline{\text{C00615}} + \underline{\text{C01094}}$	Fructose and mannose metabolism
R04076	$\underline{\text{C04261}} + \underline{\text{C00247}} \iff \underline{\text{C00615}} + \underline{\text{C02888}}$	Fructose and mannose metabolism
R04111	$\underline{\text{C04261}} + \underline{\text{C00208}} \iff \underline{\text{C00615}} + \underline{\text{C02995}}$	Starch and sucrose metabolism
R04393	$\underline{\text{C04261}} + \underline{\text{C00243}} \iff \underline{\text{C00615}} + \underline{\text{C05396}}$	Galactose metabolism
R04394	$\underline{\text{C04261}} + \underline{\text{C01451}} \iff \underline{\text{C00615}} + \underline{\text{C06188}}$	Glycolysis / Gluconeogenesis
R05132	$\underline{\text{C04261}} + \underline{\text{C06186}} \iff \underline{\text{C00615}} + \underline{\text{C06187}}$	Glycolysis / Gluconeogenesis
R05199	$\underline{\text{C04261}} + \underline{\text{C00140}} \iff \underline{\text{C00615}} + \underline{\text{C00357}}$	Amino sugar and nucleotide sugar metabolism
R05570	$\underline{\text{C01697}} + \underline{\text{C04261}} \iff \underline{\text{C06311}} + \underline{\text{C00615}}$	Galactose metabolism
R05820	$\underline{\text{C04261}} + \underline{\text{C00794}} \iff \underline{\text{C00615}} + \underline{\text{C01096}}$	Fructose and mannose metabolism
R07671	$\underline{\text{C04261}} + \underline{\text{C00072}} \iff \underline{\text{C00615}} + \underline{\text{C16186}}$	Ascorbate and aldarate metabolism
R08367	$\underline{\text{C02262}} + \underline{\text{C04261}} \iff \underline{\text{C06377}} + \underline{\text{C00615}}$	Galactose metabolism
R08559	$\underline{\text{C02713}} + \underline{\text{C04261}} \iff \underline{\text{C16698}} + \underline{\text{C00615}}$	Amino sugar and nucleotide sugar metabolism
R08860	$\underline{\text{C04261}} + \underline{\text{C01019}} \iff \underline{\text{C00615}} + \underline{\text{C02985}}$	Amino sugar and nucleotide sugar metabolism
R02628	$\underline{\text{C00074}} + \underline{\text{C00615}} \iff \underline{\text{C00022}} + \underline{\text{C04261}}$	enzyme I of the phosphotransferase system
R03921	$\underline{\text{C16688}} + \underline{\text{C00001}} \iff \underline{\text{C02336}} + \underline{\text{C00668}}$	Starch and sucrose metabolism
R08555	$\underline{\text{C00256}} + \underline{\text{C00357}} \iff \underline{\text{C16698}} + \underline{\text{C00001}}$	Amino sugar and nucleotide sugar metabolism
R07677	<u>C16186</u> + <u>C00001</u> <=> <u>C14899</u>	Ascorbate and aldarate metabolism
R02087	<u>C00357</u> <=> <u>C04257</u>	Amino sugar and nucleotide sugar metabolism