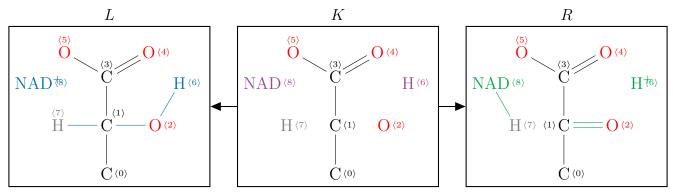
# Summary

September 6, 2024

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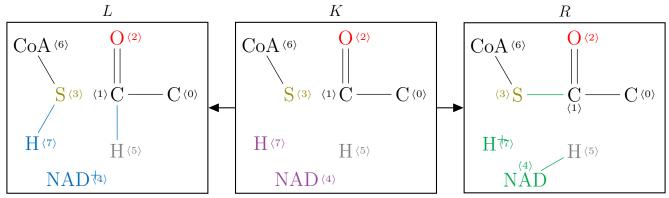
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#### 0.0.1 R1: (S)-lactate + NAD+ = pyruvate + NADH + H+



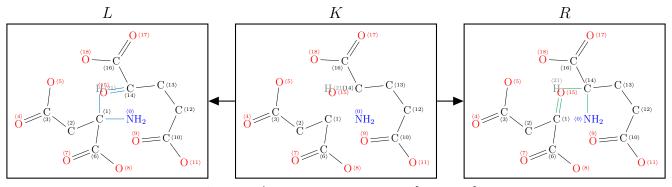
Files:  $out/001_r_0_11300110_{L, K, R}$ 

#### 0.0.2 R2: Ac-aldehyde + CoA + NAD+ = Ac-CoA + NADH + H+



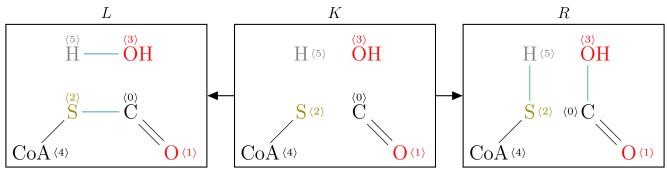
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#### 0.0.3 R3: L-Aspartate + 2-Oxoglutarate <=> Oxaloacetate + L-Glutamate



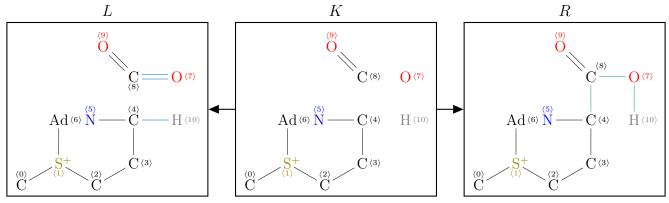
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#### 0.0.4 R4: Acyl-CoA + H2O <=> CoA + Carboxylate



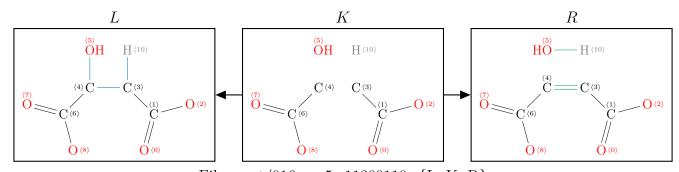
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#### 0.0.5 R5: SAM + CO2 = SAM-CO2H



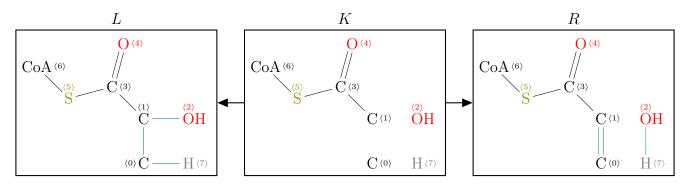
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#### 0.0.6 R6: L-malate = fumarate + H2O

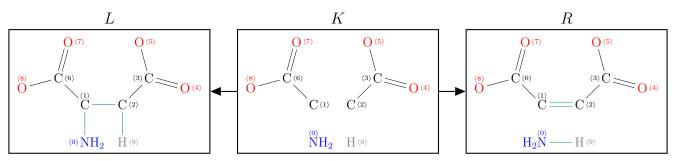


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#### 0.0.7 R7: Lactoyl-CoA <=> Propenoyl-CoA + H2O

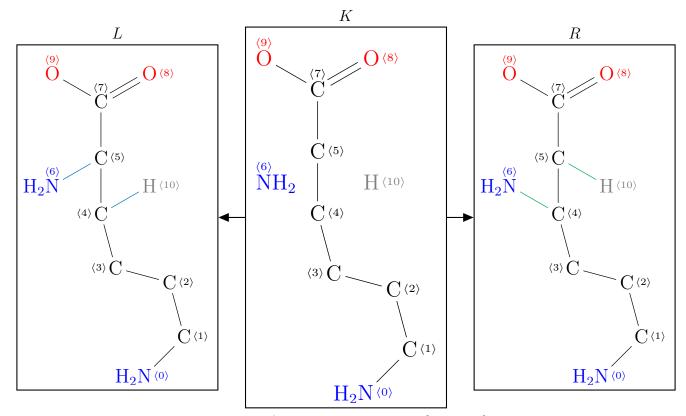


# 0.0.8 R8: L-Aspartate <=> Fumarate + Ammonia



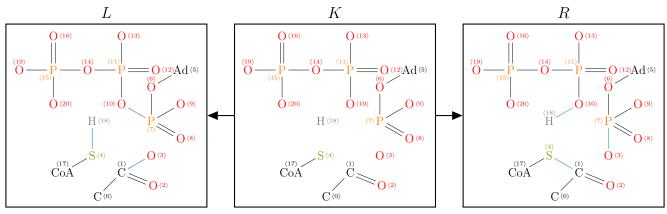
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# 0.0.9 R9: L-lysine = (3S)-3,6-diaminohexanoate



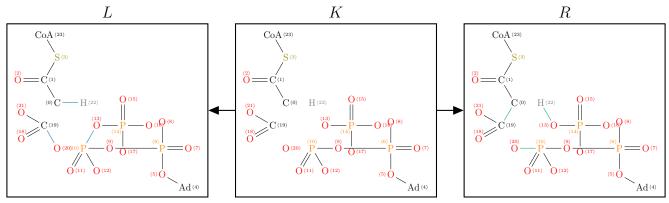
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#### 0.0.10 R10: ATP + Acetate + CoA $\leq$ AMP + PPi + Ac-CoA



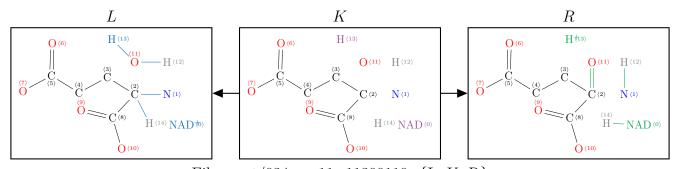
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# 0.0.11 R11: ATP + Ac-CoA + HCO3- = ADP + malonyl-CoA + Pi



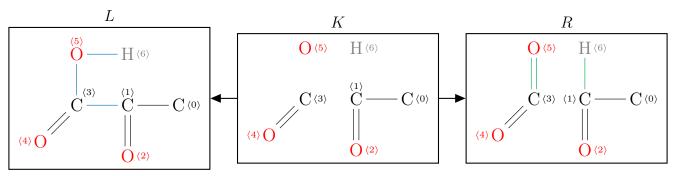
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# 0.0.12 L-glutamate + NAD+ + H2O = 2-oxoglutarate + NADH + NH3 {ir}|| ec num:1.4.1.2



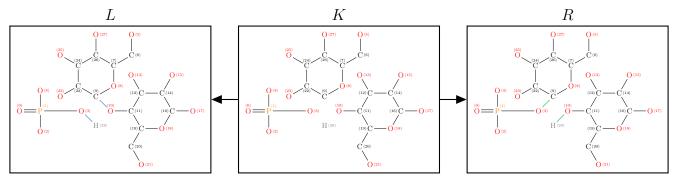
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# $0.0.13 \quad \text{pyruvate} = \text{acetaldehyde} + \text{CO2} \; \{\text{r}\} || \; \text{ec num:} \; 4.1.1.1$



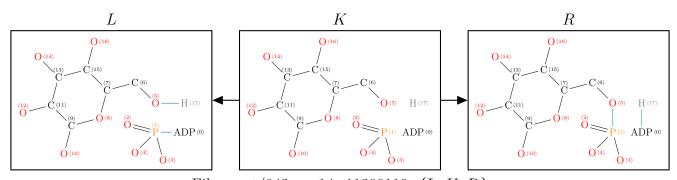
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## 0.0.14 cellobiose + phosphate = alpha-D-glucose 1-phosphate + D-glucose



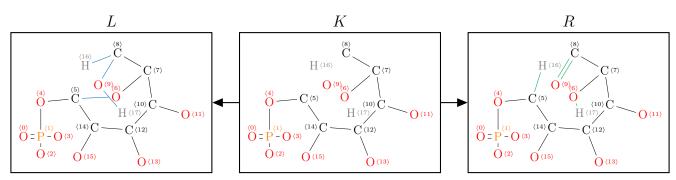
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## 0.0.15 ATP+glucose= ADP+Glucose 6-phosphate



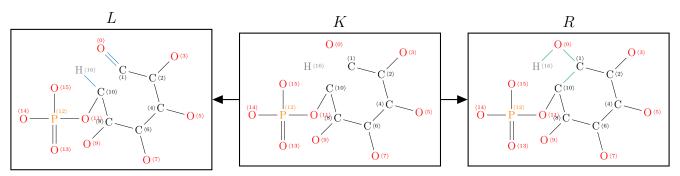
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## 0.0.16 alpha-D-glucose 1-phosphate = D-glucose 6-phosphate



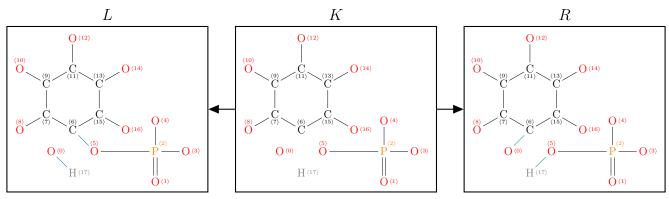
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#### 0.0.17 D-Glucose 6-phosphate = L-myo-Inositol 1-phosphate



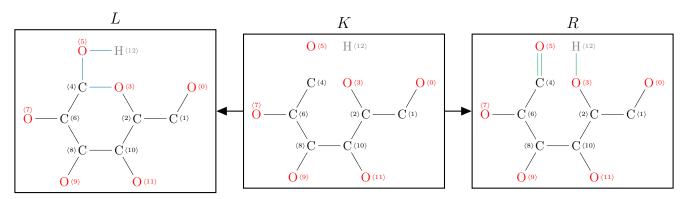
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# 0.0.18 inositol 1-phosphate + H2O = myo-inositol + phosphate



Files:  $out/052_r_17_11300110_{L, K, R}$ 

# 0.0.19 glucose D-Glucose



Files: out/055\_r\_18\_11300110\_{L, K, R}

Figure too large, see out/057\_dg\_0\_11100\_coord.pdf

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