

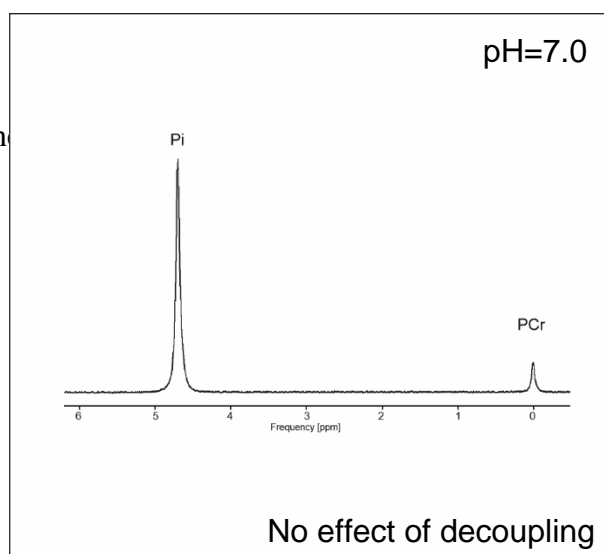
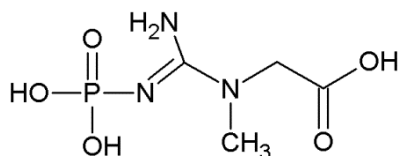
Supplementary Materials: spectra and chemical structures of measured metabolites

^{31}P MR spectra of all described metabolites in phantom solution measured at 3T. The measurement temperature was 37°C and the pH from 7.0 to 7.5. Details are given in the methods in the text. The phosphocreatine (PCr) signal was used as standard with a chemical shift of 0 ppm. Spectra were measured without (red lines) and with ^1H decoupling (blue lines).

Pi, inorganic phosphate

PCr, Phosphocreatine

N-Methyl-*N*-(phosphonocarbamimidoyl)glycine

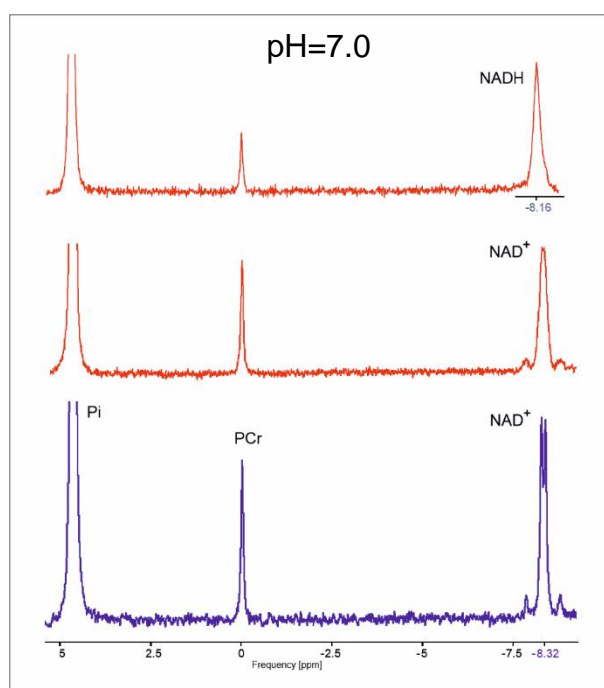
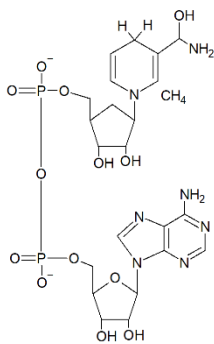
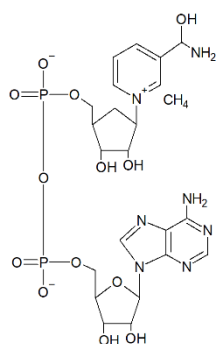


NAD⁺, NADH

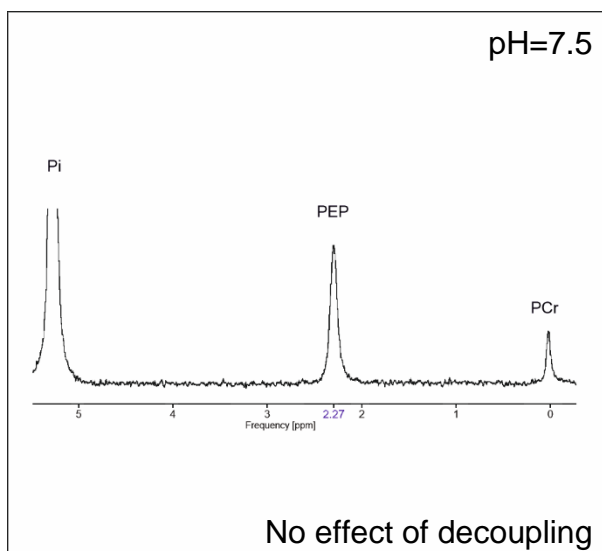
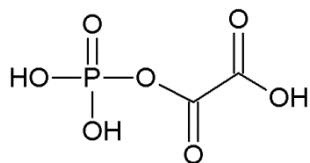
Nicotinamide adenine dinucleotide

Diphosphopyridine nucleotide (DPN⁺),

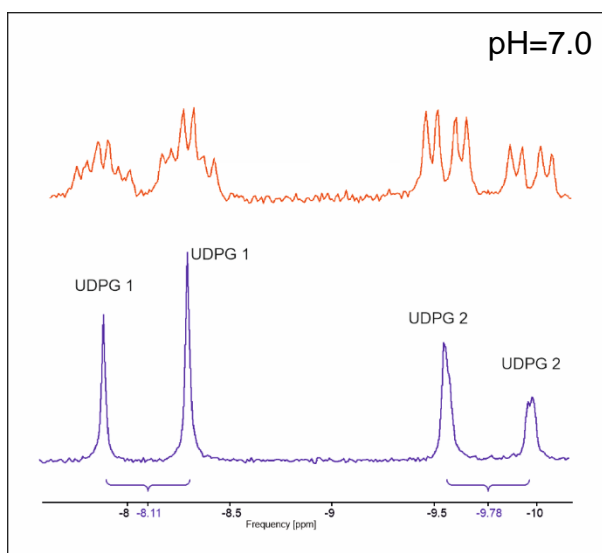
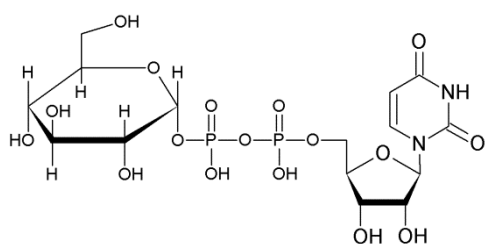
Coenzyme I



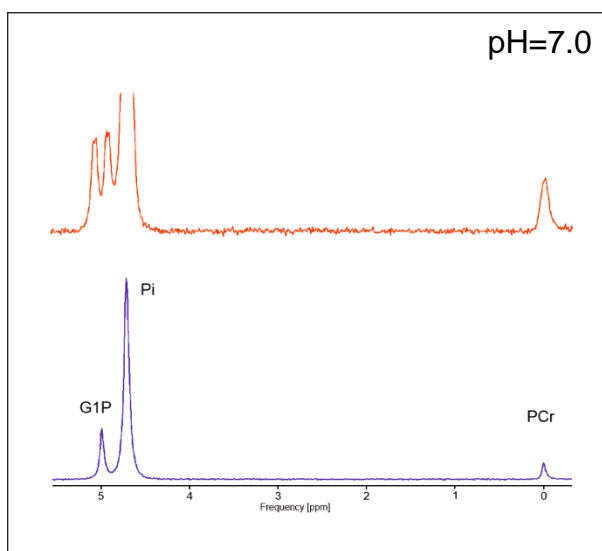
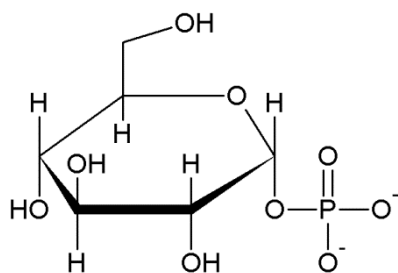
PEP, Phosphoenolpyruvate
2-(Phosphonooxy)prop-2enoic acid



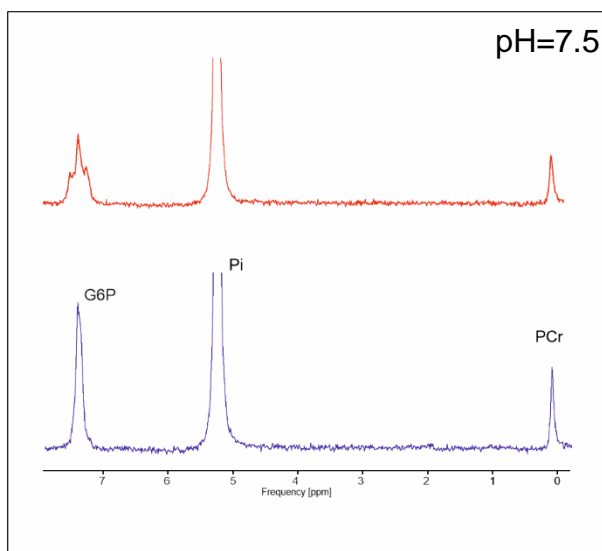
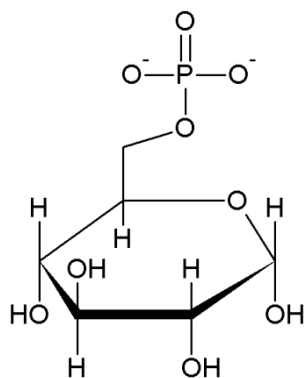
UDPG, Uridine diphosphate glucose
O1-{[(2R,3S,4R,5R)-5-(2,4-Dioxo-3,4-dihydropyrimidin-1(2H)-yl)-3,4-dihydroxyoxolan-2-yl)methyl} O3-[(2R,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl] dihydrogen diphosphate



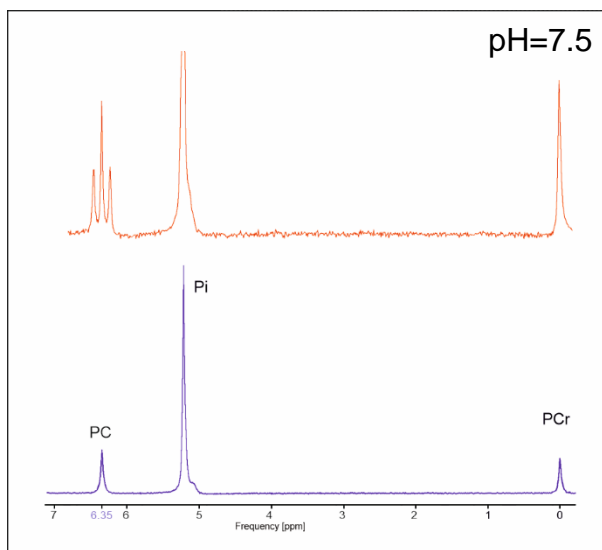
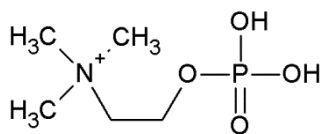
G1P, Glucose 1-phosphate
(2R,3R,4S,5S,6R)-3,4,5-Trihydroxy-6-(hydroxymethyl)oxan-2-yl phosphate



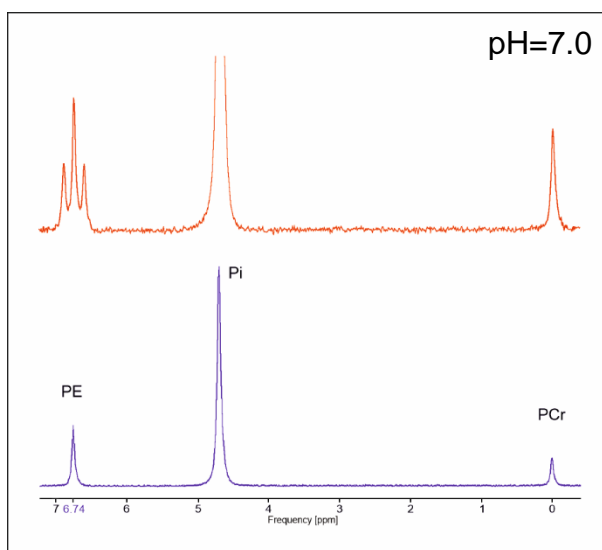
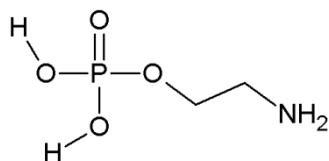
G6P, Glucose 6-phosphate



PC Phosphocholine Choline phosphate

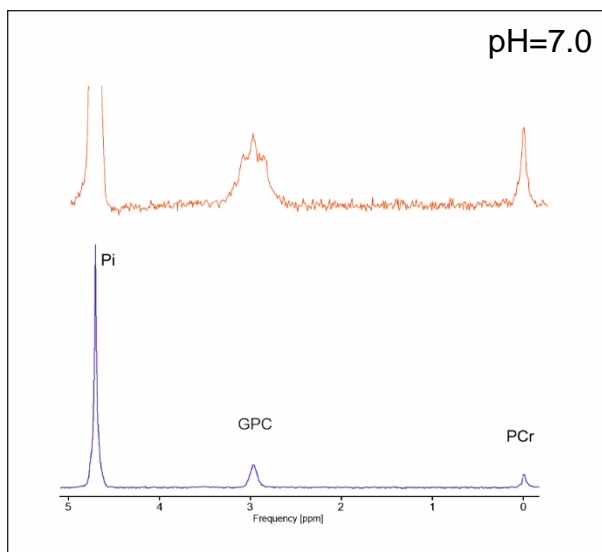
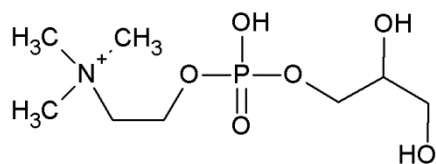


PE Phosphorylethanolamine Phosphoethanolamine 2-Aminoethyl dihydrogen phosphate



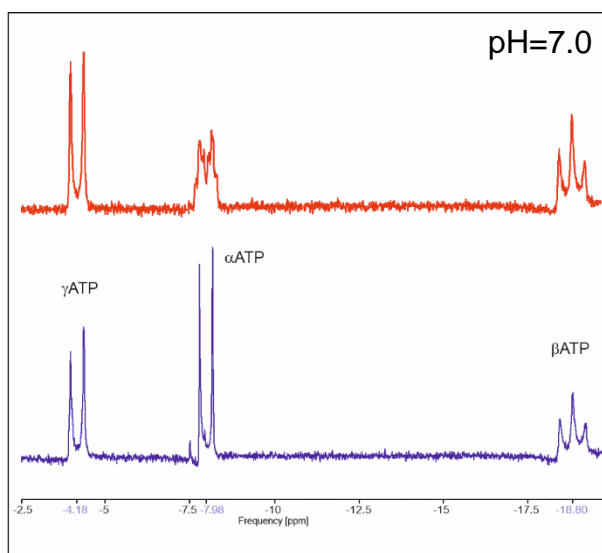
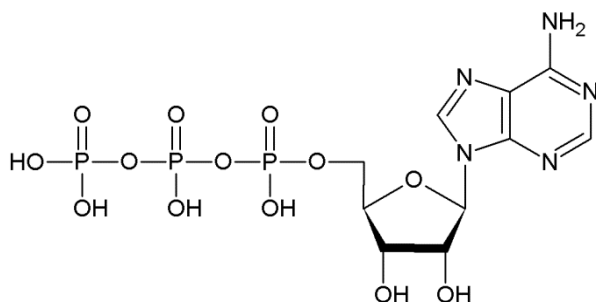
GPC

Glycerol-3-phosphoryl choline



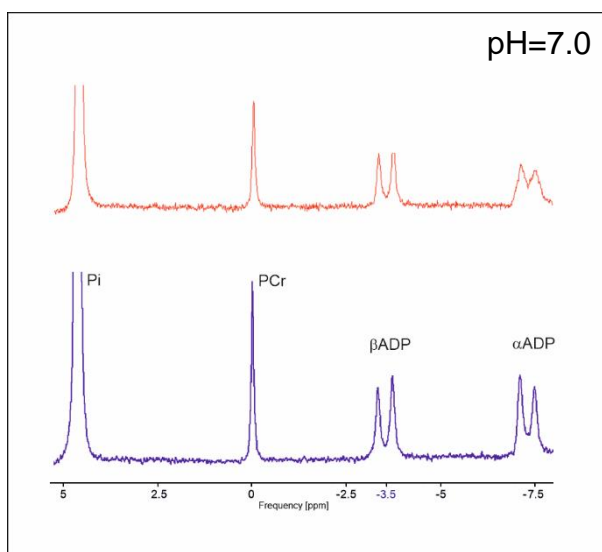
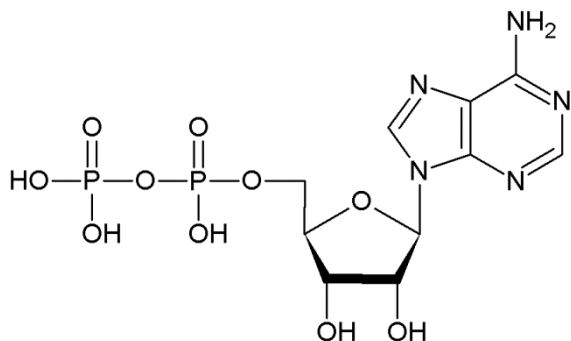
ATP, Adenosine triphosphate

Adenosine 5'-(tetrahydrogen triphosphate)

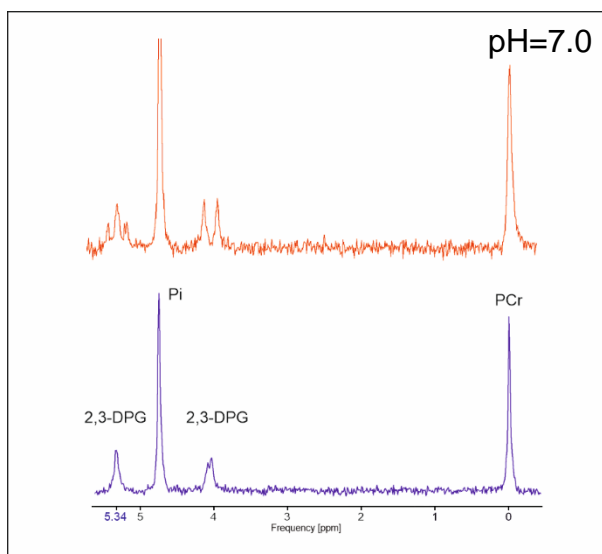
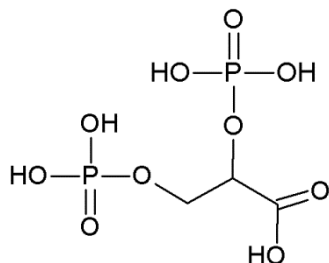


ADP, Adenosine diphosphate

Adenosine 5'-(trihydrogen diphosphate)



2,3-DPG, 2,3-diphosphoglycerate)
 2,3-Bis(phosphonoxy)propanoic acid



PtdC, Phosphatidylcholines
 1-Oleoyl-2-palmitoyl-phosphatidylcholine
 (solution of water+ethanol+tritone)
 *impurities

