

Supplemental Table 2

Metabolic switches. Reactions which are critical drivers in cancer and redundant in the corresponding healthy tissue. We show the reaction name, EC numbers of enzymatic reactions, Human Metabolic Reaction database ID, and the cancer/tissue type(s) for which the reaction is a metabolic switch. The first five reactions are metabolic switches for more than one cancer type and discussed in the main text.

Reaction name	EC number(s)	ID	Tissue(s)
Diacylglycerol kinase (DAGK)	2.7.1.107	HMR_0604	Lung, Urothelial, Renal
Deoxyguanosine kinase (dGK)	2.7.1.113	HMR_4600	Urothelial, Renal
adenosylhomocysteinase (AHCY)	3.3.1.1	HMR_3877	Urothelial, Breast
IMP dehydrogenase	1.1.1.205	HMR_4040	Urothelial, Breast
Deoxyadenosine kinase (dAK)	2.7.1.76	HMR_4633	Renal, Breast
Glycerol dehydrogenase (NADP+)	1.1.1.1; 1.1.1.2; 1.1.1.21; 1.1.1.72	HMR_0453	Lung
Purine nucleoside phosphorylase	2.4.2.1	HMR_4663	Renal
Methionine uptake	-	HMR_9042	Renal
Histidine uptake	-	HMR_9038	Breast
Glycerol-3-phosphate dehydrogenase (NADP+)	1.1.1.94	HMR_0478	Breast
Glycerol-3-phosphate dehydrogenase (NAD+)	1.1.1.8	HMR_0479	Breast
Glycerol-3-phosphate dehydrogenase	1.1.5.3	HMR_0483	Breast
Ceramidase	3.5.1.23	HMR_0753	Breast
Sphingosine N-acyltransferase	2.3.1.24	HMR_0758	Breast
1-pyrroline-5-carboxylate dehydrogenase	1.5.1.12	HMR_3822	Renal
Hexokinase	2.7.1.1	HMR_4319	Lung
Sodium-coupled neutral amino acid transporter 2	TCDB: 2.A.18.6.5	HMR_5324	Urothelial
Phosphoric monoester hydrolases	3.1.3.-	HMR_6545	Lung
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Phosphatidylinositol 3-kinase	2.7.1.137	HMR_8824	Lung
Inositol exchange (uptake and/or excretion)	-	HMR_9361	Breast