## Core reactions in cancer but not in normal tissues

arginine[c] + H2O[c] => ornithine[c] + urea[c]

chloride[s] + glycine[s] + 2 Na+[s] => chloride[c] + glycine[c] + 2 Na+[c] alanine[s] + chloride[s] + 2 Na+[s] => alanine[c] + chloride[c] + 2 Na+[c] arginine[s] + chloride[s] + 2 Na+[s] => arginine[c] + chloride[c] + 2 Na+[c] chloride[s] + histidine[s] + 2 Na+[s] => chloride[c] + histidine[c] + 2 Na+[c] chloride[s] + isoleucine[s] + 2 Na+[s] => chloride[c] + isoleucine[c] + 2 Na+[c] chloride[s] + leucine[s] + 2 Na+[s] => chloride[c] + leucine[c] + 2 Na+[c] chloride[s] + lysine[s] + 2 Na+[s] => chloride[c] + lysine[c] + 2 Na+[c] chloride[s] + 2 Na+[s] + valine[s] => chloride[c] + 2 Na+[c] + valine[c] chloride[s] + cysteine[s] + 2 Na+[s] => chloride[c] + cysteine[c] + 2 Na+[c] chloride[s] + 2 Na+[s] + serine[s] => chloride[c] + 2 Na+[c] + serine[c]

2 H+[c] + prostaglandin G1[c] <=> H2O[c] + prostaglandin H1[c] 2 H+[r] + prostaglandin G1[r] <=> H2O[r] + prostaglandin H1[r]

chloride[s] + 2 HCO3-[c] => chloride[c] + 2 HCO3-[s] 2 HCO3-[c] + oxalate[s] => 2 HCO3-[s] + oxalate[c] 2 H+[s] + sulfate[s] => 2 H+[c] + sulfate[c]

NH3[c] <=> NH3[s]

