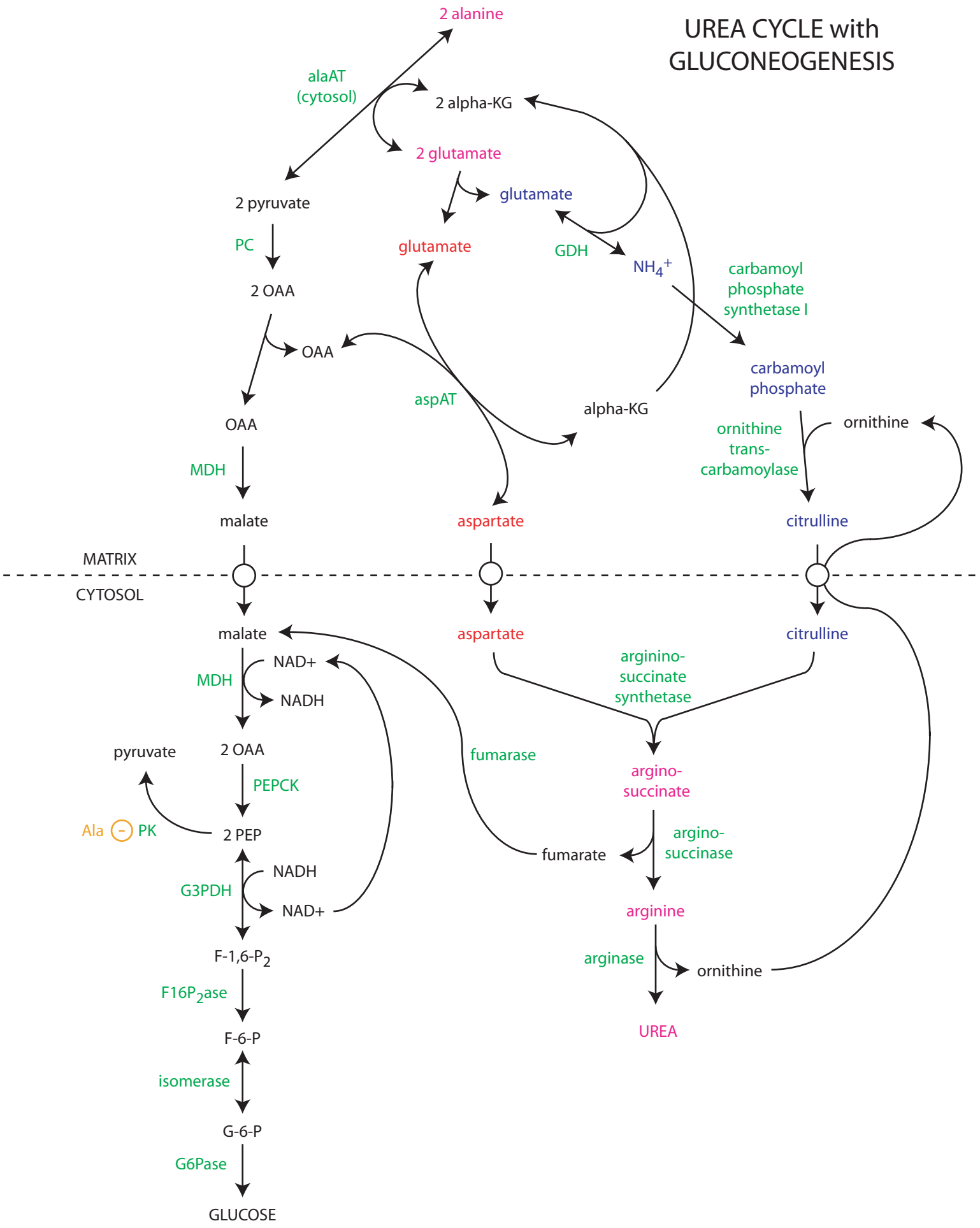
UREA CYCLE with GLUCONEOGENESIS
2 alanine
alaAT (cytosol)
2 alpha-KG
2 glutamate
glutamate
2 pyruvate
PC
glutamate
GDH
NH_4^+
carbamoyl phosphate synthetase I
2 OAA
OAA
carbamoyl phosphate
aspAT
alpha-KG
OAA
ornithine
ornithine trans-carbamoylase
MDH
malate
aspartate
citrulline
MATRIX
CYTOSOL
malate
aspartate
citrulline
NAD+
MDH
NADH
arginino-succinate synthetase
pyruvate
2 OAA
fumarase
argino-succinate
PEPCK
Ala
PK
2 PEP
fumarate
argino-succinase
NADH
G3PDH
NAD+
arginine
F-1,6-P_2
arginase
ornithine
F16P_2ase
UREA
F-6-P
isomerase
G-6-P
G6Pase
GLUCOSE