

Supplementary materials

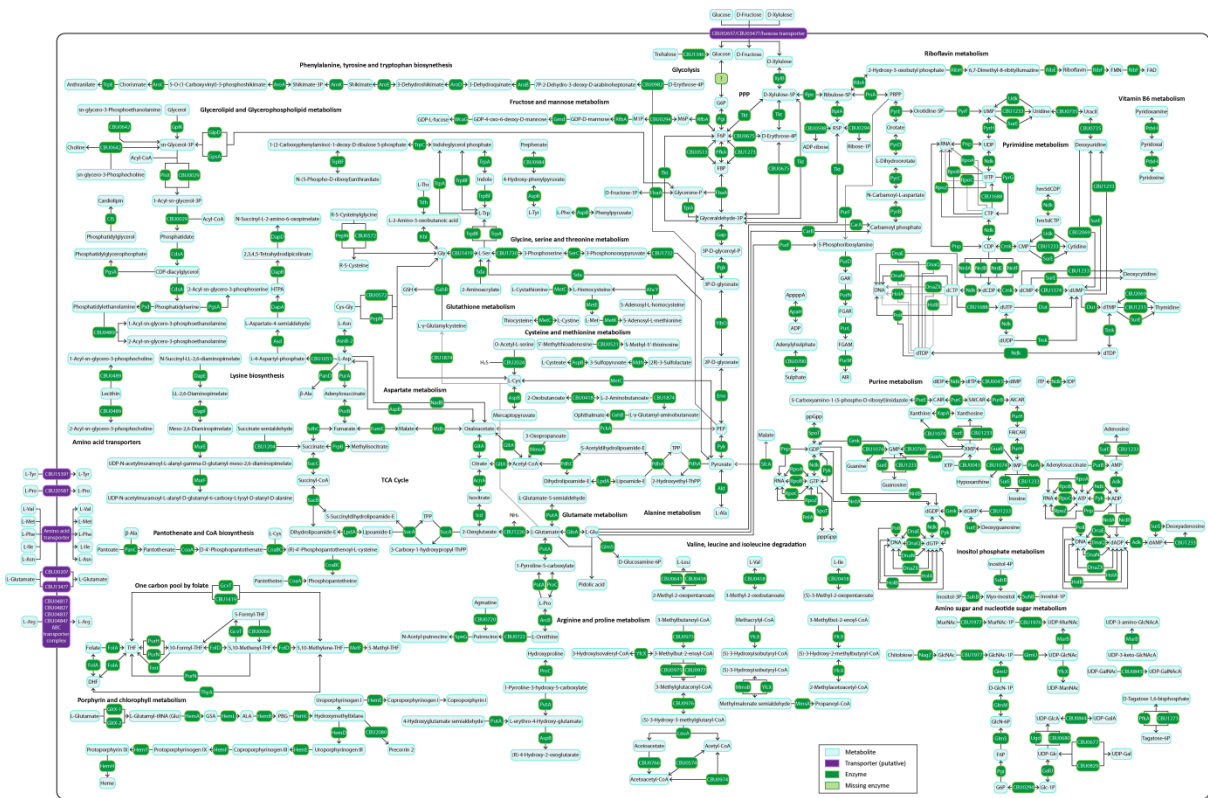
Figure S1. Complete metabolic pathway map of *C. burnetii*. Pale blue boxes indicate metabolites. Dark green boxes indicate existing enzymes while pale green boxes indicate missing enzymes based on genome annotation data in KEGG. Purple denotes putative transporters. Metabolite abbreviations are listed in Table S1.

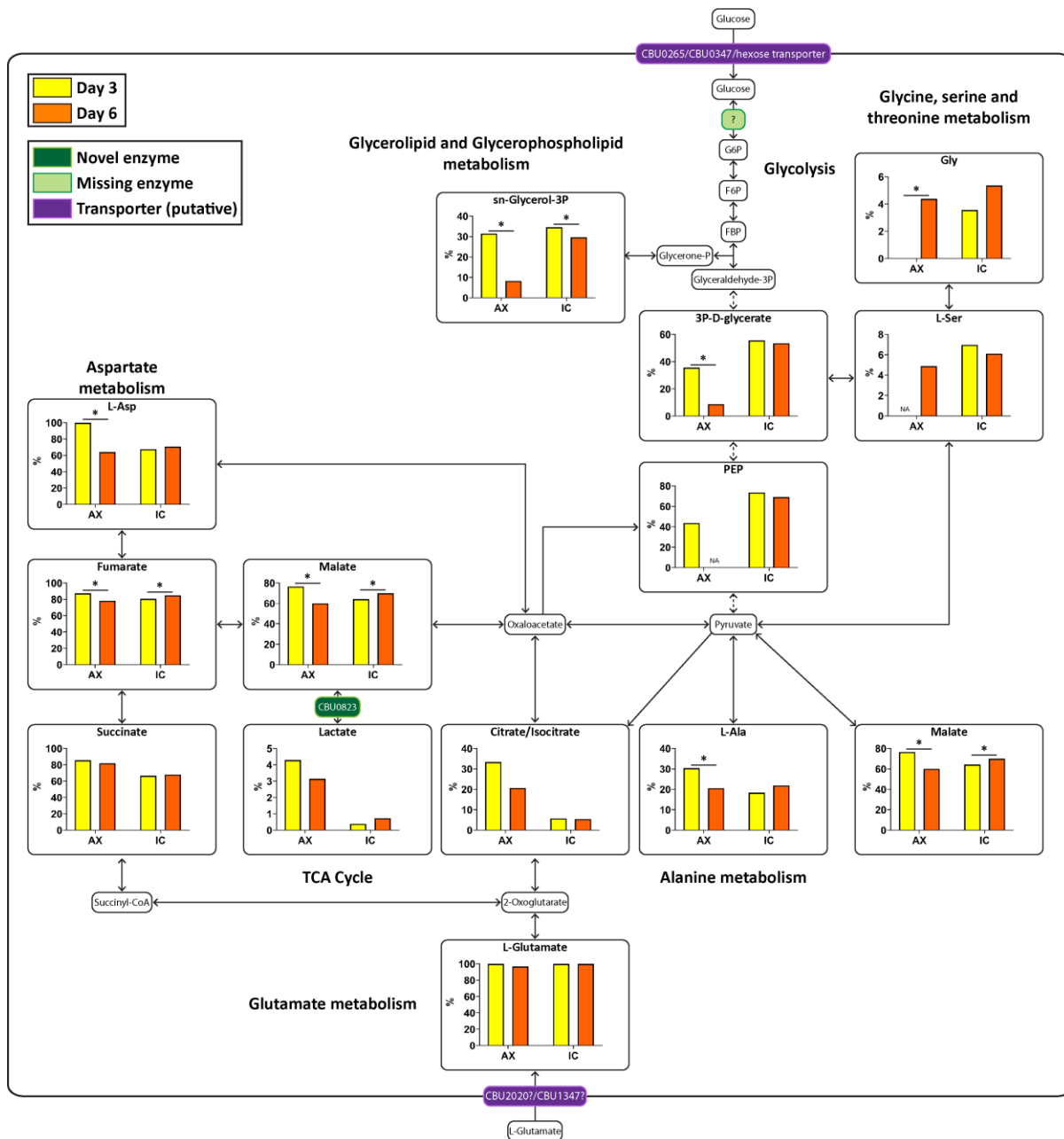
Figure S2. Day 3 vs day 6 comparisons of [¹³C]glutamate labeled *C. burnetii*. Metabolic pathway map of *C. burnetii* comparing ¹³C-label incorporation at day 3 and day 6 within the same culture condition after 10 minute incubation with [¹³C]glutamate. Metabolites detected on the GC/MS as having incorporated ¹³C-label are shown in larger boxes, with percentage labeling in bar graphs. Yellow bars indicate day 3 samples while orange bars indicate day 6 samples. Pale green boxes indicate missing enzymes based on genome annotation data in KEGG. Dotted arrows indicate pathways which have been abbreviated. * = $p < 0.05$. NA indicates metabolites which were unable to be detected in a given condition. Metabolite abbreviations are listed in Table S1.

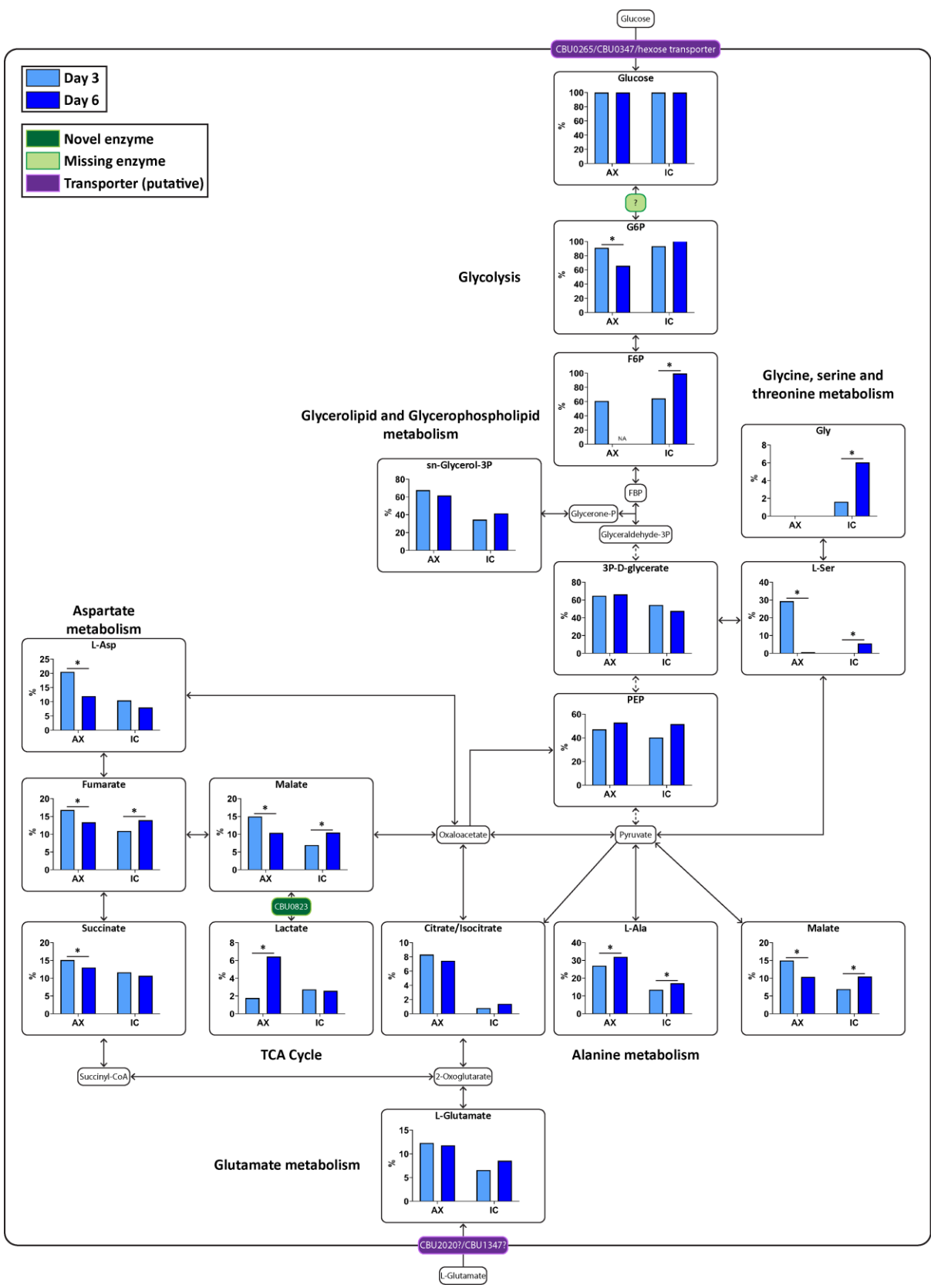
Figure S3. Day 3 vs day 6 comparisons of [¹³C]glucose labeled *C. burnetii*. Metabolic pathway map of *C. burnetii* comparing ¹³C-label incorporation at day 3 and day 6 within the same culture condition after 10 minute incubation with [¹³C]glucose. Metabolites detected on the GC/MS as having incorporated ¹³C label are shown in larger boxes, with percentage labeling in bar graphs. Light blue bars indicate day 3 samples while dark blue bars indicate day 6 samples. Pale green boxes indicate missing enzymes based on genome annotation data in KEGG. Dotted arrows indicate pathways which have been abbreviated. * = $p < 0.05$. NA

indicates metabolites which were unable to be detected in a given condition. Metabolite abbreviations are listed in Table S1.

Figure S4. Transposon insertion sites and confirmation of transposon mutant complementation. Schematic of transposon insertion sites in *0265::Tn* and *0347::Tn* mutants (A). Red arrows indicate insertion sites for *cbu0265* (light blue) and *cbu0347* (yellow). Direction of internal arrows indicate direction of open reading frame. Numbers indicate base pairs within *C. burnetii* RSA 439 Phase II genome. Western blot showing expression of 3xFLAG-0265 or 3xFLAG-0347 in *C. burnetii* strains (B). RpoA used as loading control.







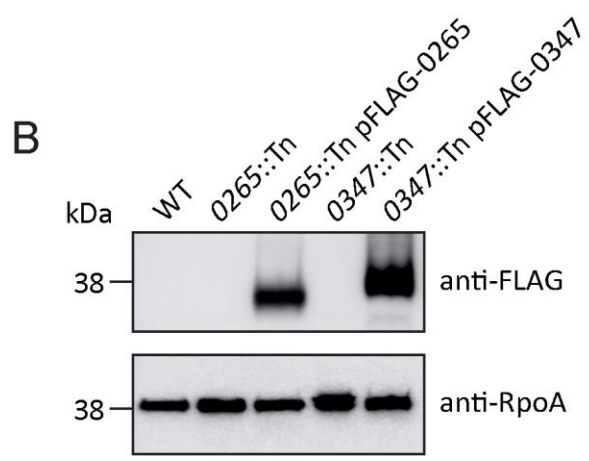
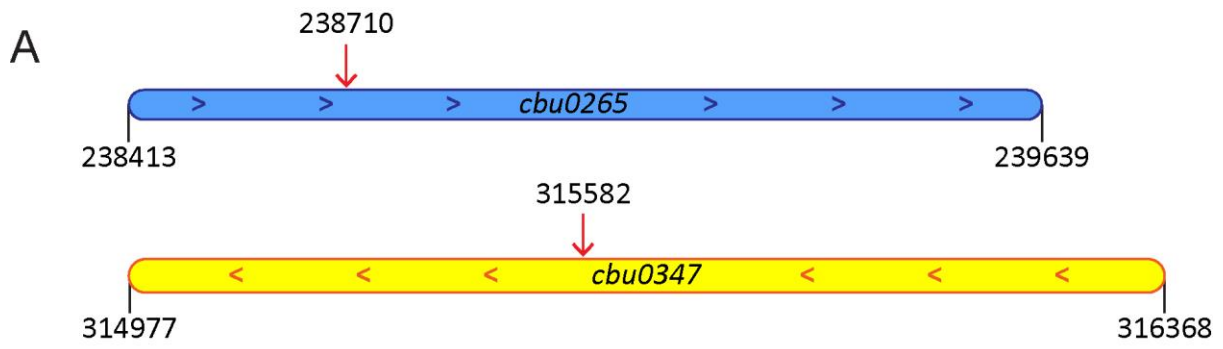


Table S1. Metabolite abbreviations.

Abbreviation	Metabolite
P	Phosphate
1P	1-phosphate
2P	2-phosphate
3P	3-phosphate
4P	4-phosphate
5P	5-phosphate
6P	6-phosphate
G6P	D-Glucose 6-phosphate
F6P	D-Fructose 6-phosphate
FBP	D-Fructose 1,6-bisphosphate
PEP	Phosphoenolpyruvate
TPP	Thiamin diphosphate
ThPP	Thiamin diphosphate
R5P	D-Ribose 5-phosphate
PRPP	5-phospho-D-ribose 1-diphosphate
M1P	D-Mannose 1-phosphate
M6P	D-Mannose 6-phosphate
UMP	Uridine 5'-monophosphate
UDP	Uridine 5'-diphosphate
UTP	Uridine 5'-triphosphate
CMP	Cytidine 5'-monophosphate
CDP	Cytidine 5'-diphosphate
CTP	Cytidine 5'-triphosphate
dCMP	Deoxycytidine 5'-monophosphate
dCDP	Deoxycytidine 5'-diphosphate
dCTP	Deoxycytidine 5'-triphosphate
dUMP	Deoxyuridine 5'-monophosphate
dUDP	Deoxyuridine 5'-diphosphate
dUTP	Deoxyuridine 5'-triphosphate
dTMP	Deoxythymidine 5'-monophosphate
dTDP	Deoxythymidine 5'-diphosphate
hm5dCDP	2'-Deoxy-5-hydroxymethylcytidine-5'-diphosphate
hm5dCTP	2'-Deoxy-5-hydroxymethylcytidine-5'-triphosphate
GAR	5'-Phosphoribosylglycinamide
FGAR	5'-Phosphoribosyl-N-formylglycinamide
FGAM	5'-Phosphoribosylformylglycinamide
AIR	Aminoimidazole ribotide
AppppA	P1,P4-Bis(5'-adenosyl)tetrphosphate
AMP	Adenosine 5'-monophosphate
ADP	Adenosine 5'-diphosphate
ATP	Adenosine 5'-triphosphate
IMP	Inosine 5'-monophosphate
IDP	Inosine 5'-diphosphate
ITP	Inosine 5'-triphosphate
XMP	Xanthosine 5'-monophosphate
XTP	Xanthosine 5'-triphosphate
GMP	Guanosine 5'-monophosphate

GDP	Guanosine 5'-diphosphate
GTP	Guanosine 5'-triphosphate
dAMP	Deoxyadenosine 5'-monophosphate
dADP	Deoxyadenosine 5'-diphosphate
dIMP	Deoxyinosine 5'-monophosphate
dIDP	Deoxyinosine 5'-diphosphate
dITP	Deoxyinosine 5'-triphosphate
dGMP	Deoxyguanosine 5'-monophosphate
dGDP	Deoxyguanosine 5'-diphosphate
dGTP	Deoxyguanosine 5'-triphosphate
FAICAR	5'-Phosphoribosyl-5-formamido-4-imidazolecarboxamide
AICAR	5'-Phosphoribosyl-5-amino-4-imidazolecarboxamide
SAICAR	5'-Phosphoribosyl-4-(N-succinocarboxamide)-5-aminoimidazole
CAIR	1-(5-Phospho-D-ribosyl)-5-amino-4-imidazolecarboxylate
ppGpp	Guanosine 3',5'-bis(diphosphate)
pppGpp	Guanosine 3'-diphosphate 5'-triphosphate
L-Ala	L-Alanine
L-Asp	L-Aspartate
L-Asn	L-Asparagine
L-Cys	L-Cysteine
L-Glu	L-Glutamine
L-Ile	L-Isoleucine
L-Leu	L-Leucine
L-Met	L-Methionine
L-Phe	L-Phenylalanine
L-Pro	L-Proline
L-Ser	L-Serine
L-Thr	L-Threonine
L-Trp	L-Tryptophan
L-Tyr	L-Tyrosine
L-Val	L-Valine
β-Ala	Beta-Alanine
HTPA	(2S,4S)-4-Hydroxy-2,3,4,5-tetrahydrodipicolinate
Gly	Glycine
Cys-Gly	L-Cysteinylglycine
GSH	Glutathione
MurNAc	N-Acetylmuramate
GlcNAc	N-Acetyl-D-glucosamine
GlcNAcA	N-Acetyl-D-glucosaminuronate
GlcN	D-Glucosamine
Glc	D-Glucose
GlcA	D-Glucuronate
Gal	D-Galactose
GalA	D-Galacturonate
GalNAc	N-Acetyl-D-galactosamine
GalNAcA	N-Acetyl-D-galactosaminuronate
ManNAc	N-Acetyl-D-mannosamine
FMN	Riboflavin-5-phosphate
FAD	Flavin adenine dinucleotide
DHF	Dihydrofolate

THF	Tetrahydrofolate
GSA	Glutamate-1-semialdehyde
ALA	5-Aminolevulinate
PBG	Porphobilinogen

Table S2. ¹³C-label incorporation values in mock or uninfected THP-1 cell samples.

Metabolite	Percentage label incorporation
[¹³C]glutamate	
Succinate	18.53%
Lactate	0.92%
[¹³C]glucose	
Succinate	12.43%
Lactate	0.53%

Metabolites not listed did not have detectable label incorporation on GC/MS