## Genes repressed in rabbit ileal loops

### Protein synthesis

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protein L4 (rplD) VC2595
protein L3 (rplC) VC2596
protein S10 (rpsJ) VC2597
protein L31 (rpmE) VC2679
protein L35 (rpmI) VCA0289
protein L20 (rplT) VCA0290
large subunit pseudouridine synthase A (rnuA-1) VC2505
glycyl-tRNA synthetase, beta chain (glyS) VC0020
glycyl-tRNA synthetase, alpha chain (glyQ) VC0021
alanyl-tRNA synthetase (alaS) VC0545
tRNA (guanine-N1)-methyltransferase VC0563
tyrosyl-tRNA synthetase (tyrS) VC0631
S-adenosylmethionine:tRNA ribosyltransferase VC0739
queuine tRNA-ribosyltransferase (tgt) VC0741
prolyl-tRNA synthetase (proS) VC0875
leucyl-tRNA synthetase (leuS) VC0956
leucyl-tRNA synthetase (glnS) VC0997
methionyl-tRNA synthetase (metG) VC1036
seryl-tRNA synthetase (serS) VC1110
aspartyl-tRNA synthetase (aspS) VC1166
phenylalanyl-tRNA synthetase, alpha chain (pheS) VC1219
phenylalanyl-tRNA synthetase, beta chain (pheT) VC1220
asparaginyl-tRNA synthetase (asnS) VC1297
glutamyl-tRNA synthetase (gltX) VC2214
valyl-tRNA synthetase (valS) VC2503
threonyl-tRNA synthetase (thrS) VCA0287
elongation factor Tu (tufB) VC0321
elongation factor G (fusA) VC0361
elongation factor TU (tufA) VC0362
elongation factor P family protein VC1209
elongation factor Ts (tsf) VC2259
peptide chain release factor 2, FRAMESHIFT VC0663
initiation factor IF-2 (infB) VC0643
initiation factor IF-1 (infA) VC1737
initiation factor IF3, POINTMUTATION VCA0288

Protein Fate
chaperone protein HscA (hscA) VC0752
chaperonin, 10 Kd subunit (groES) VCA0819
chaperonin, 10 Kd subunit (groES) VC2655
chaperonin, 60 Kd subunit (groEL) VCA0820
chaperonin, 60 Kd subunit (groEL) VC2664
16 kDa heat shock protein A (ibpA) VC0018
heat shock protein HtpG (htpG) VC0985
heat shock protein GrpE (grpE) VC0854
dnaK suppressor protein (dksA)
dnaK protein (dnaK) (Vibrio cholerae)
DnaK-related protein
peptidyl-prolyl cis-trans isomerase, FKBP-type (fkpA)
peptidyl-prolyl cis-trans isomerase, FKBP-type (fkbB)
trigger factor (tig) (Escherichia coli)
preprotein translocase, SecE subunit (secE)
preprotein translocase, SecG subunit (secG)
preprotein translocase, SecY subunit (secY)
preprotein translocase, SecA subunit (secA)
protein-export membrane protein SecD (secD)
protein-export membrane protein SecF (secF)
protein-transport protein SecB (secB)
peptide methionine sulfoxide reductase (msrA)
polypeptide deformylase (def)
thiol:disulfide interchange protein (tpcG)
clpB protein (clpB) (Escherichia coli)
protease HslVU, ATPase subunit HslU
protease HslVU, subunit HslV (hslV)
trypsin, putative (Mus musculus)
protease, putative (Escherichia coli)
ATP-dependent protease LA (lon) (Vibrio cholerae)
ATP-dependent Clp protease, ATP-binding subunit (clpX)
ATP-dependent Clp protease, proteolytic subunit (clpP)
oligopeptidase A (oprC)
peptidase B (pepB) (Escherichia coli)
methionine aminopeptidase (map)
aminopeptidase A1 (pepA)

Transporter and binding protein
ABC transporter, ATP-binding protein
ABC transporter, ATP-binding protein
ABC transporter, ATP-binding protein
spermidine/pentosidine ABC transporter (potD-2)
spermidine/pentosidine ABC transporter (potA)
spermidine/pentosidine ABC transporter (potD-1)
tyrosine-specific transport protein (tyrP)
multidrug resistance protein, putative
ferric vibriobactin-binding protein (irgA)
vitamin B12 receptor (btuB)
sodium/alanine symporter
formate transporter 1, putative
long-chain fatty acid transport protein (fadL-3)
long-chain fatty acid transport protein (fadL-2)
lipopolysaccharide/O-antigen transport protein (rfbH)
Cellular process
antioxidant, AhpC/Tsa family  
 superoxide dismutase, Fe (sodB)  
 septum site-determining protein MinD  
 cell division protein FtsJ (ftsJ)

Energy Metabolism
ATP synthase F1, epsilon subunit (atpC)  
 ATP synthase F1, beta subunit (atpD)  
 ATP synthase F1, gamma subunit (atpG)  
 ATP synthase F1, alpha subunit (atpA)  
 ATP synthase F1, delta subunit (atpH)  
 ATP synthase F0, B subunit (atpF)  
 ATP synthase F0, C subunit (atpE)  
 ATP synthase F0, A subunit (atpB)  
 ATP synthase protein I (atpI)

NADH:ubiquinone oxidoreductase, Na translocating (nqrF)  
 NADH:ubiquinone oxidoreductase, Na translocating (nqrE)  
 NADH:ubiquinone oxidoreductase, Na translocating (nqrD)  
 NADH:ubiquinone oxidoreductase, Na translocating (nqrC)  
 NADH:ubiquinone oxidoreductase, Na translocating (nqrB)  
 NADH:ubiquinone oxidoreductase, Na translocating (nqrA)  
 cytochrome d ubiquinol oxidase, subunit II (cydB-1)  
 cytochrome d ubiquinol oxidase, subunit I (cydA-1)

cytochrome c5 {Azotobacter vinelandii}  
 cytochrome c4 {Pseudomonas stutzeri}  
 ubiquinol–cytochrome c reductase, iron-sulfur subunit (petA)

Flavodoxin 1 (fldA) {Escherichia coli}  
thioredoxin (trxA) {Escherichia coli}  
thioredoxin 2 (trxC) {Escherichia coli}  
thioredoxin reductase (trxB)

NADH dehydrogenase (ndh)  
Glutaredoxin (grxA)

pyruvate dehydrogenase, E3 component (lpdA)  
pyruvate dehydrogenase, E2 component (aceF)  
pyruvate dehydrogenase, E1 component (aceE)  
2-oxoglutarate dehydrogenase, E1 component (sucA)  
transaldolase B (talB)

glucose-6-phosphate 1-dehydrogenase (zwf)  
6-phosphogluconate dehydrogenase, decarboxylating (gnd)
trehalose-6-phosphate hydrolase (treC)  
malate oxidoreductase, putative

acetate kinase (ackA) {Escherichia coli}  
acetate kinase (ackA) {Escherichia coli}

phosphate acetyltransferase (pta)

iron-containing alcohol dehydrogenase family protein RfbM
Regulatory function
factor-for-inversion stimulation protein (fis) VC0290
gluconate utilization system gnt-l transcriptional repressor (gntR) VC0289
GTP-binding protein TypA (typA) VC2744
pyruvate dehydrogenase complex repressor (pdhR) VC2415

Transcription
DNA-directed RNA polymerase, beta subunit VC0328
DNA-directed RNA polymerase, beta' subunit VC0329
DNA-directed RNA polymerase, alpha subunit VC2571
DNA-directed RNA polymerase, omega subunit VC2709
RNA polymerase-associated protein HepA VC2506
RNA polymerase sigma factor RpoD (rpoD) VC0517
ATP-dependent RNA helicase SrmB (srmB) VC0660
transcription antitermination protein NusG (nusG) VC0323
transcription elongation factor GreA (greA) VC0634
ribosome-binding factor A (rbaA) VC0644
16S rRNA processing protein RimM (rimM) VC0562

DNA metabolism
exodeoxyribonuclease III (xth) VC1860
AVG-specific adenine glycosylase (mutY) VC0452
ATP-dependent DNA helicase Rep (rep) VC0167
recR protein, FRAMESHIFT (recR) VC1056
DNA-binding protein HU (hupA) VC0273
DNA gyrase, subunit A, FRAMESHIFT (gyrA) VC1258
primosomal replication protein N (priB) VC0367

Purine, pyrimidines, nucleosides, and nucleotides
uridylate kinase (pyrH) (Escherichia coli) VC2258
uridine kinase (udk) (Escherichia coli) VC1038
purine nucleoside phosphorylase (deoD-2) VCA0053
purine nucleoside phosphorylase (deoD-1) VC2347
UTP-glucose-1-phosphate uridylyltransferase (galU) VC0395
adenosine deaminase (add) (Escherichia coli) VC2751
cytidylate kinase (cmk) (Escherichia coli) VC1916
inosine-guanosine kinase (gsk) VC1129
adenylate kinase (adk) (Escherichia coli) VC0986
adenylsuccinate synthetase (purA) VC2602
ribonucleoside-diphosphate reductase, β subunit (ndrB) VC1255
ribonucleoside-diphosphate reductase, α subunit (ndrA) VC1256

Fatty acid and phospholipid metabolism
acetyl-CoA carboxylase, carboxyl transferase α subunit (accA) VC2244
acetyl-CoA carboxylase, biotin carboxyl carrier protein (accB) VC0296
acetyl-CoA carboxylase, biotin carboxylase (accC) VC0295
acetyl-CoA carboxylase, carboxyl transferase β subunit (accD) VC1000
myo-inositol-monophosphatase VC0745
(3R)-hydroxymyristoyl-(acyl-carrier-protein) dehydratase (fabZ) VC2249
lipase, putative {Aeromonas hydrophila} VCA0863
3-oxoacyl-(acyl-carrier-protein) synthase (fabF) VC2019
acyl carrier protein (acp) VC2020
3-oxoacyl-(acyl-carrier-protein) reductase (fabG) VC2021
malonyl Coa-acyl carrier protein transacylase (fabD) VC2022
3-oxoacyl-(acyl-carrier-protein) synthase (fabH-1) VC2023
3-oxoacyl-(acyl-carrier-protein) synthase (fabB) VC2109
acyl protein synthase/acyl-CoA reductase RtbN VC0251
acyl carrier protein, putative {Vibrio cholerae} VC0248

Cell envelope
outer membrane protein OmpA (ompA) {Vibrio cholerae} VC2213
outer membrane protein OmpH (ompH) VC2251
GDP-mannose 4,6-dehydratase (rfbD) {Vibrio cholerae} VC0243
UDP-3-O-3-hydroxymyristoyl glucosamine N-acetyltransferase (fimA) VC2250
lipoprotein, putative {Escherichia coli} VC1195
inner membrane protein, 60 kDa (yidC) VC0004
peptidoglycan-associated lipoprotein VC1835

Amino acid biosynthesis
3-dehydroquinate dehydratase (aroQ) VC0297
shikimate kinase (aroK) {Escherichia coli} VC2629
glutamate–ammonia ligase (glnA) {Vibrio cholerae} VC2746
aspartate aminotransferase (aspC) VC1293
Glutamate 5-kinase (proB) VC2274
serine hydroxymethyltransferase (glyA) VC0941
N-acetylglutamate synthase (argA) VC2316

Biosynthesis of cofactor
lipoyl acid synthetase (lipA) VC0943
lipoate-protein ligase B (lipB) VC0944
uroporphyrin-III C-methyltransferase (cysG) VC2561
nicotinate phosphoribosyltransferase (pncB) VCA0098
thiamin biosynthesis protein Thil (thil) VC0894
riboflavin synthase, beta subunit (ribH) VC2268

Central intermediary metabolism
agmatinase (speB) {Escherichia coli} VCA0814
biosynthetic arginine decarboxylase (speA) VCA0815
inorganic pyrophosphatase (ppa) VC2545
sulfate adenylate transferase, subunit 2 (cysD) VC2560
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