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| **Locus Tag** | **JCVI Cellular Role Category** | **Pathogenesis** |
| PSPTO\_4251 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4252 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4253 | Mobile and extrachromosomal element functions: Transposon functions |   |
| *gor-2* | Energy metabolism: Electron transport/Cellular processes: Pathogenesis | **** |
| PSPTO\_4255 | Energy metabolism: Other |   |
| PSPTO\_4256 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4257 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4258 | Energy metabolism: Electron transport |   |
| *kefC* | Transport and binding proteins: Cations and iron carrying compounds |   |
| *trxA* | Energy metabolism: Electron transport |   |
| PSPTO\_4261 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4262 | Regulatory functions: DNA interactions |   |
| PSPTO\_4263 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4264 | Hypothetical protein: Conserved |   |
| *metC-2* | Amino acid biosynthesis: Aspartate family |   |
| PSPTO\_4266 | Cell envelope: Other |   |
| PSPTO\_4267 | Regulatory functions: DNA interactions |   |
| PSPTO\_4268\* | Disrupted reading frame; Transport and binding proteins: Anions |   |
| PSPTO\_4269 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4270 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4271\* | Disrupted reading frame; Transport and binding proteins: Anions |   |
| PSPTO\_4272 | Hypothetical protein |   |
| PSPTO\_4273 | Disrupted reading frame; Mobile and extrachromosomal element functions: Prophage functions |
| PSPTO\_4274 | Regulatory functions: DNA interactions |   |
| PSPTO\_4275 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4276 | Regulatory functions: DNA interactions |   |
| PSPTO\_4277 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4278 | Transport and binding proteins: Unknown substrate |   |
| PSPTO\_4279 | Hypothetical protein: Conserved |   |
| PSPTO\_4280 | Cell envelope: Other |   |
| PSPTO\_4281 | Hypothetical protein: Conserved |   |
| PSPTO\_4282 | Hypothetical protein |   |
| *pnlA* | Cell envelope: Biosynthesis and degradation of surface polysaccharides and lipopolysaccharides/Cellular processes: Pathogenesis |  |
| PSPTO\_4284 | Unknown function: Enzymes of unknown specificity |   |
| *adhB* | Energy metabolism: Fermentation |   |
| PSPTO\_4286 | Hypothetical protein: Conserved |   |
| PSPTO\_4287 | Hypothetical protein |   |
| PSPTO\_4288 | Hypothetical protein: Conserved |   |
| PSPTO\_4289 | Hypothetical protein: Conserved |   |
| *bglX* | Energy metabolism: Biosynthesis and degradation of polysaccharides |   |
| PSPTO\_4291 | Regulatory functions: Protein interactions/Signal transduction: Two-component systems |   |
| PSPTO\_4292 | Regulatory functions: DNA interactions/Regulatory functions: Protein interactions/Signal transduction: Two-component systems |
| PSPTO\_4293 | Regulatory functions: Protein interactions/Signal transduction: Two-component systems |   |
| PSPTO\_4294 | Protein fate: Protein folding and stabilization |   |
| PSPTO\_4295 | Protein fate: Protein folding and stabilization |   |
| PSPTO\_4296 | Transport and binding proteins: Unknown substrate |   |
| PSPTO\_4297 | Hypothetical protein: Conserved domain |   |
| PSPTO\_4298 | Hypothetical protein: Conserved |   |
| PSPTO\_4299 | Hypothetical protein |   |
| PSPTO\_4300 | Cellular processes: Toxin production and resistance/Transport and binding proteins: Other |   |
| PSPTO\_4301 | Hypothetical protein: Conserved |   |
| PSPTO\_4302 | Regulatory functions: DNA interactions |   |
| PSPTO\_4303 | Transport and binding proteins: Unknown substrate |   |
| PSPTO\_4304 | Cellular processes: Toxin production and resistance/Transport and binding proteins: Other |   |
| PSPTO\_4305 | Transport and binding proteins: Unknown substrate |   |
| *pcaT* | Transport and binding proteins: Carbohydrates, organic alcohols, and acids/Energy metabolism: Other |   |
| *catF* | Energy metabolism: Other |   |
| *catJ* | Energy metabolism: Other |   |
| *catI* | Energy metabolism: Other |   |
| *pcaR* | Regulatory functions: DNA interactions |   |
| PSPTO\_5644\*\* | Hypothetical protein |   |
| PSPTO\_4312 | Transport and binding protein: Anions |   |
| PSPTO\_4313 | Hypothetical protein |   |
| *purU-3* | Purines, pyrimidines, nucleosides, and nucleotides: Purine ribonucleotide biosynthesis |   |
| PSPTO\_4315 | Regulatory functions: DNA interactions |   |
| *sbcB* | DNA metabolism: Degradation of DNA/DNA metabolism: DNA replication, recombination, and repair |
| PSPTO\_4317 | Hypothetical protein: Conserved |   |
| PSPTO\_4318 | Cell envelope: Other |   |
| PSPTO\_4319 | Hypothetical protein: Conserved |   |
| PSPTO\_4320 | Hypothetical protein: Conserved |   |
| PSPTO\_4321 | Hypothetical protein |   |
| PSPTO\_4322 | Hypothetical protein |   |
| PSPTO\_4323 | Hypothetical protein: Conserved |   |
| PSPTO\_4324 | Hypothetical protein |   |
| PSPTO\_4325 | Hypothetical protein |   |
| PSPTO\_4326 | Hypothetical protein: Conserved |   |
| PSPTO\_4327 | Hypothetical protein |   |
| PSPTO\_4328 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4329 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4330 | Hypothetical protein: Conserved domain |   |
| *hopE1* | Protein fate: Protein and peptide secretion and trafficking/Cellular processes: Pathogenesis |  |
| PSPTO\_4332 | Hypothetical protein: Conserved |   |
| PSPTO\_4333 | Unknown function: General |   |
| PSPTO\_4334 | Hypothetical protein: Conserved |   |
| PSPTO\_4335 | Hypothetical protein: Conserved |   |
| PSPTO\_4336 | Cell envelope: Other |   |
| *pyk* | Energy metabolism: Glycolysis/gluconeogenesis |  |
| PSPTO\_4338 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4339 | Energy metabolism: TCA cycle |   |
| PSPTO\_4340 | Cellular processes: Toxin production and resistance |   |
| PSPTO\_4341 | Cellular processes: Toxin production and resistance |   |
| PSPTO\_4342 | Cellular processes: Toxin production and resistance |   |
| PSPTO\_4343 | Cellular processes: Toxin production and resistance |   |
| PSPTO\_4344 | Cellular processes: Toxin production and resistance |   |
| PSPTO\_4345 | Hypothetical protein: Conserved |   |
| PSPTO\_4346 | Hypothetical protein |   |
| PSPTO\_4347 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4348 | Hypothetical protein |   |
| PSPTO\_4349 | Unknown function: General |   |
| PSPTO\_4350 | Unknown function: General |   |
| PSPTO\_4351 | Hypothetical protein: Conserved |   |
| PSPTO\_4352 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4353 | Hypothetical protein: Conserved |   |
| PSPTO\_4354 | Unknown function: General |   |
| PSPTO\_4355 | Hypothetical proteins: Conserved |   |
| PSPTO\_4356 | Regulatory functions: DNA interactions |   |
| PSPTO\_4357 | Transport and binding proteins: Unknown substrate |   |
| PSPTO\_4358 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4359 | Hypothetical protein: Domain |   |
| PSPTO\_4360 | Unknown function: Enzymes of unknown specificity |   |
| *iciA* | DNA metabolism: DNA replication, recombination, and repair/Regulatory functions: DNA interactions |
| PSPTO\_4362 | Transport and binding proteins: Amino acids, peptides and amines |   |
| *sodB* | Cellular processes: Detoxification/Cellular processes: Pathogenesis |  |
| PSPTO\_4364 | Hypothetical protein |   |
| PSPTO\_4365 | Unknown function: General |   |
| PSPTO\_4366 | Cell envelope: Other |   |
| PSPTO\_4367 | Cell envelope: Other |   |
| PSPTO\_4368 | Cell envelope: Other |   |
| PSPTO\_4369 | Cell envelope: Other |   |
| PSPTO\_4370 | Hypothetical protein: Conserved |   |
| *inaA* | Regulatory functions: Other |   |
| PSPTO\_4372 | Hypothetical protein |   |
| *colS* | Regulatory functions: Protein interactions/Signal transduction: Two-component systems |   |
| *colR* | Regulatory functions: DNA interactions/Regulatory functions: Protein interactions/Signal transduction: Two-component systems |
| PSPTO\_4375 | Unknown function: General |   |
| *groEL* | Protein fate: Protein folding and stabilization |   |
| *groES* | Protein fate: Protein folding and stabilization |   |
| PSPTO\_4378 | Hypothetical protein |   |
| PSPTO\_4379 | Unknown function: General |   |
| PSPTO\_4380 | Unknown function: Enzymes of unknown specificity |   |
| PSPTO\_4381 | Hypothetical protein: Conserved |   |
| PSPTO\_4382 | Unknown function: General |   |
| PSPTO\_4383 | Transport and binding proteins: Unknown substrate |   |
| PSPTO\_4384 | Hypothetical protein |   |
| PSPTO\_4385 | Unknown function: General |   |
| PSPTO\_4386 | Hypothetical protein |   |
| PSPTO\_4387 | Hypothetical protein |   |
| PSPTO\_4388 | Hypothetical protein |   |
| PSPTO\_4389 | Mobile and extrachromosomal element functions: Transposon functions |   |
| PSPTO\_4390 | Mobile and extrachromosomal element functions: Transposon functions |   |
| Legend |  |
| Functional role categories | No. of genes per category |
| Mobile and extrachromosomal element functions/ Prophage functions | 11 |
| Energy metabolism | 11 |
| Unknown function/Hypothetical proteins | 66 |
| Transport and binding proteins/Cell envelope | 21 |
| Regulatory functions: DNA interactions/Two component Regulators | 14 |
| Amino acid biosynthesis | 1 |
| Protein fate: Protein folding and stabilization | 5 |
| Nucleic acid metabolism  | 3 |
| Toxin production and resistance | 8 |
| \*Disrupted reading frame | Total = 140 |
| \*\* No JCVI Cellular role category information |  |