

**Table S5. Annotated genes present in KPN11 but not in NJST258\_2.**

| ref_genome_patric_id   | ref_genomeFunction annotated in PATRIC   | start   | End     |
|------------------------|--|---------|---------|
| fig 1420013.7.peg.13   | Putative cytoplasmic protein   | 7519    | 8499    |
| fig 1420013.7.peg.14   | Holliday junction resolvase / Crossover junction endodeoxyribonuclease<br>rusA (EC 3.1.22.-) | 8512    | 8889    |
| fig 1420013.7.peg.16   | Replication protein O  | 9705    | 10658   |
| fig 1420013.7.peg.17   | Orf33  | 11065   | 11526   |
| fig 1420013.7.peg.19   | regulatory protein   | 11901   | 12596   |
| fig 1420013.7.peg.34   | VgrG protein   | 24884   | 25348   |
| fig 1420013.7.peg.60   | ClpB protein   | 50454   | 50576   |
| fig 1420013.7.peg.225  | Phosphoribosylformylglycinamide synthase   | 230240  | 230389  |
| fig 1420013.7.peg.245  | COG2116: Formate/nitrite family of transporters  | 253932  | 254312  |
| fig 1420013.7.peg.263  | 62kDa structural protein   | 267609  | 269033  |
| fig 1420013.7.peg.277  | endodeoxyribonuclease RusA   | 275420  | 275776  |
| fig 1420013.7.peg.291  | putative DNA-binding protein   | 281322  | 281657  |
| fig 1420013.7.peg.293  | Primosomal protein I   | 282417  | 283325  |
| fig 1420013.7.peg.301  | Exodeoxyribonuclease VIII (EC 3.1.11.-)  | 286941  | 289991  |
| fig 1420013.7.peg.302  | Gifsy-2 prophage protein   | 290004  | 291092  |
| fig 1420013.7.peg.467  | Formate hydrogenlyase transcriptional activator  | 455786  | 456046  |
| fig 1420013.7.peg.494  | DNA mismatch repair protein MutS   | 484846  | 484935  |
| fig 1420013.7.peg.597  | Uncharacterized protein ImpA   | 596880  | 597299  |
| fig 1420013.7.peg.678  | Diaminopimelate decarboxylase (EC 4.1.1.20)  | 676382  | 676534  |
| fig 1420013.7.peg.791  | Outer membrane porin, OprD family  | 785507  | 785632  |
| fig 1420013.7.peg.1339 | Ankyrin  | 1331096 | 1331206 |
| fig 1420013.7.peg.1380 | Membrane fusion component of tripartite multidrug resistance system                          | 1376993 | 1377130 |
| fig 1420013.7.peg.1457 | PTS system, maltose and glucose-specific IIC component                                       | 1453895 | 1454035 |
| fig 1420013.7.peg.1535 | DNA-damage-inducible protein D   | 1531123 | 1531359 |
| fig 1420013.7.peg.1717 | Amidohydrolase 2   | 1725952 | 1726950 |
| fig 1420013.7.peg.1765 | Ubiquinone biosynthesis monooxygenase UbiB   | 1781219 | 1781608 |
| fig 1420013.7.peg.1905 | Outer membrane usher protein fimD precursor  | 1937528 | 1937989 |
| fig 1420013.7.peg.1940 | Melibiose carrier protein, Na <sup>+</sup> /melibiose symporter                              | 1972593 | 1972856 |

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|------------------------|--|---------|---------|
| fig 1420013.7.peg.2133 | Type I restriction-modification system, DNA-methyltransferase subunit M (EC 2.1.1.72)      | 2171563 | 2173062 |
| fig 1420013.7.peg.2134 | Type I restriction-modification system, DNA-methyltransferase subunit M (EC 2.1.1.72)      | 2173068 | 2174558 |
| fig 1420013.7.peg.2135 | Type I restriction-modification system, specificity subunit S (EC 3.1.21.3)                | 2174559 | 2175761 |
| fig 1420013.7.peg.2136 | Type I restriction-modification system, restriction subunit R (EC 3.1.21.3)                | 2175761 | 2178823 |
| fig 1420013.7.peg.2151 | probable membrane protein YPO2297  | 2188809 | 2191118 |
| fig 1420013.7.peg.2152 | probable ATP /GTP binding protein  | 2191122 | 2192072 |
| fig 1420013.7.peg.2153 | probable ATP /GTP binding protein  | 2192288 | 2192437 |
| fig 1420013.7.peg.2158 | NgrB   | 2202059 | 2202697 |
| fig 1420013.7.peg.2159 | NgrB   | 2202694 | 2202933 |
| fig 1420013.7.peg.2160 | predicted DNA-binding transcriptional regulator  | 2203177 | 2203893 |
| fig 1420013.7.peg.2166 | YfjZ protein (antitoxin to YpjF)   | 2206904 | 2207245 |
| fig 1420013.7.peg.2167 | YpjF toxin protein   | 2207266 | 2207607 |
| fig 1420013.7.peg.2174 | Xylose isomerase (EC 5.3.1.5)  | 2216142 | 2216456 |
| fig 1420013.7.peg.2224 | GntR family transcriptional regulator YjiR @ Transcriptional regulator, GntR family domain | 2268293 | 2268700 |
| fig 1420013.7.peg.2258 | Putative oxidoreductase in 4-hydroxyproline catabolic gene cluster                         | 2299662 | 2300924 |
| fig 1420013.7.peg.2259 | Hypothetical, similar to sarcosine oxidase alpha subunit, 2Fe-2S domain                    | 2300905 | 2301168 |
| fig 1420013.7.peg.2260 | D-amino-acid oxidase (EC 1.4.3.3)  | 2301165 | 2302274 |
| fig 1420013.7.peg.2261 | 4-hydroxyproline epimerase (EC 5.1.1.8)  | 2302271 | 2303218 |
| fig 1420013.7.peg.2592 | Alpha-D-GlcNAc alpha-1,2-L-rhamnosyltransferase (EC 2.4.1.-)                               | 2660848 | 2661948 |
| fig 1420013.7.peg.2594 | Putative glycosyltransferase protein   | 2663140 | 2664165 |
| fig 1420013.7.peg.2596 | O-antigen flippase Wzx   | 2665531 | 2666748 |
| fig 1420013.7.peg.2598 | polysaccharide export protein  | 2668843 | 2669397 |
| fig 1420013.7.peg.2599 | Capsular polysaccharide synthesis enzyme CpsB  | 2669394 | 2670680 |
| fig 1420013.7.peg.2752 | 4-hydroxybenzoate transporter  | 2818431 | 2818709 |
| fig 1420013.7.peg.2753 | 4-hydroxybenzoate transporter  | 2818715 | 2819050 |
| fig 1420013.7.peg.2757 | 3-oxosteroid 1-dehydrogenase (EC 1.3.99.4)   | 2821977 | 2822099 |
| fig 1420013.7.peg.2804 | Maltose/maltodextrin ABC transporter, permease protein MalG                                | 2868718 | 2868843 |
| fig 1420013.7.peg.2864 | putative DNA methylase   | 2930202 | 2930729 |
| fig 1420013.7.peg.2869 | TolA protein   | 2932711 | 2933682 |

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| fig 1420013.7.peg.2902 | Sb8   | 2952878 | 2953195 |
| fig 1420013.7.peg.2913 | COG2116: Formate/nitrite family of transporters   | 2960562 | 2960942 |
| fig 1420013.7.peg.2977 | putative membrane protein   | 3028855 | 3029142 |
| fig 1420013.7.peg.2978 | Helix-turn-helix motif  | 3029143 | 3029505 |
| fig 1420013.7.peg.3007 | beta-lactamase domain protein   | 3060820 | 3061920 |
| fig 1420013.7.peg.3009 | Putative inner membrane protein   | 3062310 | 3062558 |
| fig 1420013.7.peg.3016 | Permease of the drug/metabolite transporter (DMT) superfamily   | 3072375 | 3073298 |
| fig 1420013.7.peg.3060 | Isochorismate synthase (EC 5.4.4.2) [enterobactin] siderophore @<br>Isochorismate synthase (EC 5.4.4.2) of siderophore biosynthesis | 3123974 | 3124363 |
| fig 1420013.7.peg.3196 | TolA protein  | 3265787 | 3267112 |
| fig 1420013.7.peg.3219 | Putative molybdenum transport ATP-binding protein modF  | 3290803 | 3290958 |
| fig 1420013.7.peg.3285 | Transketolase, C-terminal section (EC 2.2.1.1)  | 3356732 | 3356890 |
| fig 1420013.7.peg.3314 | Transcriptional regulator, LacI family  | 3387175 | 3387417 |
| fig 1420013.7.peg.3437 | Alkanesulfonates-binding protein  | 3528879 | 3529010 |
| fig 1420013.7.peg.3460 | T1SS secreted agglutinin RTX  | 3554015 | 3566473 |
| fig 1420013.7.peg.3463 | Type I secretion system, membrane fusion protein LapC   | 3570219 | 3571439 |
| fig 1420013.7.peg.3464 | poly (glycerol-phosphate) alpha-glucosyltransferase   | 3571493 | 3574627 |
| fig 1420013.7.peg.3520 | COG1309: Transcriptional regulator  | 3629350 | 3629796 |
| fig 1420013.7.peg.3521 | Arginase (EC 3.5.3.1)   | 3630017 | 3630880 |
| fig 1420013.7.peg.3591 | Candidate type III effector Hop protein   | 3699412 | 3701130 |
| fig 1420013.7.peg.3592 | 2-keto-3-deoxygluconate permease (KDG permease)   | 3701223 | 3702242 |
| fig 1420013.7.peg.3594 | Ribose 5-phosphate isomerase B (EC 5.3.1.6)   | 3702647 | 3703105 |
| fig 1420013.7.peg.3596 | Transketolase (EC 2.2.1.1)  | 3704106 | 3704252 |
| fig 1420013.7.peg.4017 | Small heat shock protein  | 4123502 | 4123882 |
| fig 1420013.7.peg.4143 | Xylulose kinase (EC 2.7.1.17)   | 4242382 | 4242762 |
| fig 1420013.7.peg.4218 | Multidrug resistance protein ErmB   | 4314002 | 4314142 |
| fig 1420013.7.peg.4236 | transcriptional regulator, LacI family  | 4330648 | 4330947 |
| fig 1420013.7.peg.4329 | Muconate cycloisomerase (EC 5.5.1.1)  | 4421689 | 4421907 |
| fig 1420013.7.peg.4336 | Respiratory nitrate reductase alpha chain (EC 1.7.99.4)   | 4430622 | 4431461 |
| fig 1420013.7.peg.4341 | N-hydroxyarylamine O-acetyltransferase (EC 2.3.1.118)   | 4435522 | 4435770 |
| fig 1420013.7.peg.4402 | Benzoate transport protein  | 4490473 | 4490706 |
| fig 1420013.7.peg.4472 | Acid shock protein precursor  | 4555436 | 4555729 |

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| fig 1420013.7.peg.4483 | Alcohol dehydrogenase (EC 1.1.1.1)                                  | 4563022 | 4563144 |
| fig 1420013.7.peg.4497 | Permeases of the major facilitator superfamily                      | 4574569 | 4574790 |
| fig 1420013.7.peg.4532 | probable integral membrane protein NMA1777                          | 4611234 | 4612118 |
| fig 1420013.7.peg.4556 | ABC transporter related   | 4632972 | 4633064 |
| fig 1420013.7.peg.4740 | Outer membrane protein  | 4827634 | 4828068 |
| fig 1420013.7.peg.4982 | Lipopolysaccharide biosynthesis protein WzxC                        | 5066006 | 5067310 |
| fig 1420013.7.peg.4989 | Low molecular weight protein-tyrosine-phosphatase Wzb (EC 3.1.3.48) | 4878    | 5009    |
| fig 1420013.7.peg.5002 | periplasmic sensor signal transduction histidine kinase             | 19522   | 19962   |
| fig 1420013.7.peg.5010 | Multidrug transporter MdtB  | 29094   | 29405   |
| fig 1420013.7.peg.5067 | tRNA-dihydrouridine synthase C (EC 1.-.-.-)                         | 93272   | 93553   |