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CP009161.1:3551992-3556845  
*Burkholderia pseudomallei* TSV 48

AOI40716.1  
CP013357.1:28181-33629  
*Burkholderia oklahomensis* E0147

AWY21214.1  
CP032421.1:2448393-2457783  
*Moraxella bovis*

CAB3661178.1  
CADIJV010000020.1:63049-67571  
*Achromobacter pulmonis*

CCG95959.1  
FO203363.1:2543172-2548459  
*Marinobacter nauticus* ATCC 49040

EE47596442.1  
AAFTQ0910000008.1:3582-10401  
*Salmonella enterica* subsp. *enterica*

EK297854.1  
ANKP01000145.1:1363-5136  
*Cupriavidus* sp. *HMR-1*

ERK11934.1  
AS2801060009.1:27197-33197  
*Serratia fonticola* AU-P3(3)

HAV594070.1  
DAD01R010000087.1:1-7950  
*Acinetobacter baumannii*

KIA79102.1  
JTGE01000124.1:10984-14197  
*Chromobacterium piscinae*

KOO20226.1  
LFWB01000036.1:53-2447  
*Morganella morganii*

KQQ39283.1  
LMNW01000013.1:257-6779  
*Duganella* sp. *Leaf126*

KUY71842.1  
LOS001000123.1:238-3023  
*Burkholderia cepacia*

KWA83980.1  
LPHD01000049.1:257896-261324  
*Burkholderia ubonensis*

MBB5018719.1  
JACHY010000011.1:5852-11104  
*Chitinivora tropicus*

MBD2780849.1  
JACXBK010000041.1:41896-48936  
*Xenorhabdus* sp. 38

MBD2792534.1  
JACXB010000036.1:44075-51226  
*Xenorhabdus* sp. *CUL*

MKL382645.1  
RKS001000037.1:21675-27352  
*Pseudomonas syringae* pv. *theae*

MLB8410024.1  
JAEU00010000021.1:16310-23622  
*Dechloromonas* sp.

NIE63934.1  
VWN001000055.1:9600-13005  
*Burkholderia* sp. *Tr-860*

NIE84084.1  
VWN01000061.1:17515-22549  
*Burkholderia* sp. *Tr-15*

ODN63993.1  
MAZC01001264.1:49-2687  
*Burkholderia cenocepacia*

PWF40545.1  
PXWF02000322.1:42996-48066  
*Massilia glaciei*

QD02765.1  
CP038228.1:630963-635942  
*Xanthomonas cerealis* pv. *cerealis*

QSZ43250.1  
CP046904.1:5218511-5223377  
*Pseudoduganella flava*

RZA04307.1  
SEDR01003683.1:386-1510  
*Proteobacteria bacterium*

WP\_004261478.1  
NZ\_MMWL02000023.1:4695-10408  
*Morganella morganii* SC01

WP\_004532838.1  
NC\_022658.1:3183130-3186798  
*Burkholderia pseudomallei* NCTC 13179

WP\_020846545.1  
NZ\_ASYY01000139.1:6160-7925  
*Acinetobacter gernerii* DSM 14967 = CIP 107464 = MTCC 9824

WP\_006757119.1  
NZ\_ABLK01000022.1:9435-13285  
*Burkholderia ambifaria* NEX-5

WP\_038363300.1  
NZ\_FYD01000021.1:46514-51125  
*Pseudomonas* sp. *Irchel 3E19*

WP\_009585216.1  
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*Acinetobacter* sp. *WC-743*

WP\_015731102.1  
NC\_013421.1:3883519-3891193  
*Pectobacterium parmentieri* WPP163

WP\_016541448.1  
NZ\_ASQH01000009.1:163548-169789  
*Acinetobacter gyllenbergii* CIP 110306 = MTCC 11365

WP\_019464795.1  
NZ\_ALOY01000139.1:1-4375  
*Dyella japonica* A8

WP\_301851857.1  
NZ\_JAUJPT010000062.1:427841-435529  
*Burkholderia cepacia*

WP\_024711190.1  
NZ\_AYSY01000172.1:5950-12655  
*Xanthomonas oryzae* pv. *oryzicola* MA110

WP\_161634070.1  
NZ\_JASC01000003.1:228770-234360  
*Sulfitobacter noctilucae*

WP\_025381541.1  
NZ\_CABIH010000329.1:6408-12418  
*Yersinia similis*

WP\_051524073.1  
NZ\_AP018933.1:1612093-1617124  
*Zymobacter palmae*

WP\_084162358.1  
NZ\_BAYAD01000013.1:7378-11284  
*Paraburkholderia bannensis* NBRC 103871

WP\_180058952.1  
NZ\_CP183911.1:77281-81345  
*Acinetobacter gandensis*

WP\_152558843.1  
NZ\_JOKH01000005.1:161576-165629  
*Endozoicomonas numazuensis*

WP\_171206077.1  
NZ\_F0BK01000003.1:208157-212137  
*Acinetobacter* sp. *DSM 11652*

WP\_090757545.1  
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*Burkholderia gladioli*

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NZ\_KN150945.1:82675-93349  
*Burkholderia pseudomallei*

WP\_095835612.1  
NZ\_CP014137.1:5246535-5254244  
*Brenneria goodwinii*

WP\_056437672.1  
NZ\_LWCY01000005.1:37676-42615  
*Massilia* sp. *Root335*

WP\_056520386.1  
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*Variovorax* sp. *Root411*

WP\_059183831.1  
NZ\_JBDLLY010000007.1:11132-17050  
*Pseudomonas fulva*

WP\_108360302.1  
NZ\_LPMI01000080.1:110500-112996  
*Burkholderia ubonensis*

WP\_060074201.1  
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*Burkholderia cepacia*

WP\_108696212.1  
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*Achromobacter mucicolens*

WP\_06506080.1  
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*Paraburkholderia tropica*

WP\_065300108.1  
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*Photorhabdus namnaensis*

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*Acinetobacter* sp. *TGL-Y2*

WP\_072958199.1  
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*Vibrio gazogenes*

WP\_07380110.1  
NZ\_AP024897.1:1427024-1430789  
*Vibrio quintilis*

WP\_107242646.1  
NZ\_CP032421.1:2443885-2453587  
*Moraxella bovis*

WP\_176058505.1  
NZ\_CADFG010000003.1:55739-60519  
*Paraburkholderia* sp. *BCC1876*

WP\_084321629.1  
NZ\_BDAQ01000025.1:85231-93837  
*Pseudomonas migulae* NBRC 103157

WP\_094300375.1  
NZ\_NAHR01000031.1:26825-32067  
*Gilliamella* *piccola*

WP\_08929247.1  
NZ\_FLUY01001655.1:1-3956  
*Candidatus Thiosymbion oneisti*

WP\_218147339.1  
NZ\_F0DC01000003.1:776111-779822  
*Duganella* sp. *CF517*

WP\_082378803.1  
NZ\_FORX01000023.1:69976-72284  
*Desulfomicrobium apsheronum*

WP\_092511335.1  
NZ\_CANN0010000004.1:101919-107749  
*Xenorhabdus mauleonii*

WP\_180647804.1  
NZ\_CP048509.1:2935013-2943368  
*Acinetobacter piscicola*

WP\_106757971.1  
NZ\_PXWF02000322.1:42996-48066  
*Massilia glaciei*

WP\_107856041.1  
NZ\_POXL01000006.1:175858-179885  
*Neisseria subflava*

WP\_109728028.1  
NZ\_CP084520.1:234-4963  
*Edwardsiella tarda*

WP\_18124939.1  
NZ\_JBNCLB010000005.1:149924-154162  
*Pseudomonas atacamensis*

WP\_111730196.1  
NZ\_LRG60987.1:573217-581816  
*Lemnorella richardii*

WP\_116422475.1  
NZ\_BGPP01000003.1:539340-543233  
*Pseudomonas citroneololis*

WP\_120532220.1  
NZ\_RAWD01000028.1:19594-24279  
*Corallocccus* sp. *CA047B*

WP\_122834038.1  
NZ\_UVMT02000011.1:226901-230557  
*Burkholderia pseudomallei*

WP\_130104757.1  
NZ\_CP025781.1:29032-36736  
*Iodobacter fluvialis*

WP\_134256317.1  
NZ\_SNSG01000013.1:87669-91886  
*Burkholderia cepacia*

WP\_137928261.1  
NZ\_SC0M01000111.1:9909-16070  
*Cupriavidus* sp. 25B

WP\_180473448.1  
NZ\_WHLX01000002.1:221532-230422  
*Cupriavidus* sp. *SW-Y-13*

WP\_142810389.1  
NZ\_CP036282.1:15504510-1511050  
*Rhodoferrax aquaticus*

WP\_142929704.1  
NZ\_ML660109.1:101627-108691  
*Exilibacterium tricleacearpe*

WP\_211276209.1  
NZ\_MTBM01000036.1:1-1838  
*Neisseria zoodegmatidis*

WP\_174770003.1  
NZ\_OPE501000002.1:353310-362089  
*Paraburkholderia hayleyella*

WP\_166827518.1  
NZ\_JAAX010000007.1:144220-152880  
*Todobacter violacei*

WP\_166914011.1  
NZ\_VMW01000045.1:13814-17219  
*Burkholderia* sp. *Cy-647*

WP\_171938904.1  
NZ\_JWZY01000003.1:225027-229371  
*Herbaspirillum rubrisubalbicans*

WP\_175948249.1  
NZ\_CADFD010000030.1:36884-43606  
*Burkholderia pyrrocinia*

WP\_174428562.1  
NZ\_SUQM01000090.1:1-6380  
*Cupriavidus basilensis*

WP\_219339694.1  
NZ\_JACKKA010000062.1:58065-61224  
*Luteimonas salinisoli*

WP\_192519571.1  
NZ\_JABUY010000007.1:1:2626-8993  
*Psychrobacter* sp. *FME61*

WP\_195774082.1  
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*Acinetobacter pollinis*

WP\_198661060.1  
NZ\_CP059488.1:979355-983855  
*Acidithiobacillus ferrovarans*

WP\_198768709.1  
NZ\_JAEI11010000030.1:1-3952  
*Pseudomonas cichorii*

WP\_203403531.1  
NZ\_CP069338.1:7794413-7800597  
*Archangium violaceum*

WP\_206951970.1  
NZ\_JAFLRG010000001.1:1731695-1737584  
*Trinickia acidisoli*

WP\_217885890.1  
NZ\_CP071075.1:4874382-4880475  
*Pseudomonas xanthosomatis*

VRRNUC>PAAR\_motif>HNH Baseplate\_1 TsiV

HAD\_SAK\_2 ? VRRNUC>TsiV ?

Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRRNUC>TsiV Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRR\_NUC

SRAP TsiV VRRNUC>CarboxypepD-reg-IG ?

? TsiV VRRNUC>DUF4123 RNASEII Phage\_GPD VgrG DUF2345

HTH\_35 ? VRRNUC>TsiV PAAR\_motif

? TsiV VRRNUC>PAAR\_motif SRAP

DUF4400 Phage\_GPD VgrG VRRNUC>TsiV PAAR\_motif

TsiV TsiV REase AAA\_11 AAA\_12

? TsiV VRRNUC>

VRR\_NUC> ?

? TsiV VRRNUC>DUF2345 T6SS\_Vgr VgrG Phage\_GPD PAAR\_motif

? VRRNUC>TsiV

? TsiV VRRNUC> ? ?

TonB\_dep\_Rec PLUG TsiV VRRNUC> ? PAAR\_motif SH3\_16

PAAR\_motif TsiV VRRNUC>Phage\_GPD VgrG DUF2345 T6SS\_TssF

TsiV TsiV VRR\_NUC>Phage\_GPD VgrG T6SS\_Vgr DUF2345 ?

PAS PAS\_MA PAAR\_motif CarboxypepD-reg-IG VRRNUC>TsiV ?

PP-binding Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRRNUC>TsiV Thioredoxin\_7 DsbD DsbD\_N

? PAAR\_motif VRRNUC>TsiV Tlde1\_dom

Imm72 Imm71 PAAR\_motif VRRNUC>TsiV dCache\_1\_MA

TsiV RepB ParB VRRNUC>

Metallopeptidase PAAR\_motif VRRNUC>TsiV dSSE MshEN

SymE\_toxin PAAR\_motif VRRNUC>TsiV HKD HKD

PAAR\_motif CarboxypepD-reg-IG TsiV Glyoxalase\_6 HNH\_2 EVE VRRNUC>

PAAR\_motif VRRNUC>

PAAR\_motif TsiV VRRNUC>Phage\_GPD VgrG T6SS\_Hcp

PAAR\_motif VRRNUC>CopG\_antitoxin TsiV Gp49

DUF2345 ? VRR\_NUC>

TsiV TsiV VRRNUC>PAAR\_motif CarboxypepD-reg-IG Phage\_Alpa

HTH\_AsnC-type AsnC\_trans\_reg VRRNUC>PAAR\_motif CarboxypepD-reg-IG TsiV HEPN Abi1i1

Acyl\_transf\_3 PAAR\_motif VRRNUC>TsiV TsiV

Mbetalac Phage\_GPD VgrG CarboxypepD-reg-IG VRRNUC>TsiV VRRNUC

TsiV TsiV VRRNUC>PAAR\_motif NAD-dep-oxidoreductase FAD-dep-reductase Flavodoxin\_1 PepSY\_TM

VRRNUC>TsiV TsiV DUF2345

SNARE\_assoc RHOD-CDC25 TsiV ? Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRRNUC>

TsiV VRRNUC>PAAR\_motif CarboxypepD-reg-IG GDC-P GcvP2\_C TsiV

? TsiV 3HCDH 3HCDH 3HCDH\_N ENOYCOADEHYD Hint\_2 VRRNUC>

PAAR\_motif TsiV VRRNUC>VMA Phage\_GPD VgrG

TsiV ? GTP\_EFTU GTP\_EFTU\_D2 RF3\_C VRRNUC>PAAR\_motif

TsiV ? VRR\_NUC>PAAR\_motif STox-56

Transposase\_mut MSHN1-1 ? -> ?

Amidase\_2 Flagellin\_C TsiV ABC\_tran VRR\_NUC>

2-thiour\_desulf Proteasome DUF2345 CarboxypepD-reg-IG TsiV VRRNUC>

TsiV VRRNUC>Imm50 ? Ntox24

T6SS\_VasE Phage\_GPD VgrG T6SS\_Vgr DUF2345 TsiV VRR\_NUC>VipB\_2 VipB

AmpE Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRR\_NUC>TsiV TsiV

NAD\_binding\_2 NAD\_binding\_11 PAAR\_motif CarboxypepD-reg-IG VRRNUC>PGA\_cap TsiV

VRRNUC>MFS\_1 Phage\_GPD VgrG T6SS\_Vgr DUF2345 TsiV TsiV

STY-kinase VRRNUC>TsiV Phage\_GPD Phage\_GPD VgrG DUF2345

DUF6680 TsiV VRRNUC>

PAAR\_motif VRRNUC> ? ? TsiV

Phage\_GPD VgrG T6SS\_Vgr DUF2345 TsiV GAF GAF HisKA His-Kinase Receiver VRR\_NUC>VRR\_NUC

TsiV VRRNUC>SBP\_dom\_3 Phage\_GPD VgrG T6SS\_Vgr DUF2345 ?

HAD\_tRNA-synt\_1b VRRNUC>Phage\_GPD VgrG ?

TsiV VRRNUC>PAAR\_motif ? ?

Phage\_GPD VgrG DUF4123 VRRNUC>TsiV ?

DUF4123 VRRNUC>TsiV ? PAAR\_motif

TsiV Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRR\_NUC>Phage\_GPD VgrG T6SS\_Vgr DUF2345 VRRNUC

SymE\_toxin HSDR\_N\_2 TsiV VRRNUC>PAAR\_motif CarboxypepD-reg-IG

VgrG Tox-ABHYDROLASE TsiV VRRNUC>PfkB Phage\_GPD VgrG

TsiV TsiV TsiV T6SS\_Vgr DUF2345

Tox-PAAR-Like ketoacyl-synt DUF2169 TsiV

? CarboxypepD-reg-IG TsiV VRRNUC> ?

VRRNUC>REC114-like DUF4123 ?

PAAR\_motif TsiV VRRNUC>Phage\_GPD VgrG DUF2345 ?

rve\_2 rve HTH\_21 HTH\_Tnp\_1 Cys\_rich\_CPC TsiV VRRNUC>VgrG T6SS\_Vgr DUF2345

TsiV VRR\_NUC>VRR\_NUC TsiV VRR\_NUC

PAAR\_motif CarboxypepD-reg-IG VRRNUC>HTH\_18 AraC\_binding\_2 TsiV 3D