

## Primers for *Dickeya* and *Pectobacterium* MLST

1. gapA (glyceraldehyde-3-phosphate dehydrogenase A) (Ma et al. 2007) band size 542 bp

gapA326F 5'-ATCTTCCTGACCGACGAAACTGC-3'

gapA845R 5'-ACGTCATCTTCGGTGTAAACCCAG-3'

414bp partial gene was used in analysis

Example in *D. dadantii* 3937 genome (reverse complement)

>gapA\_D\_dadantii\_3937

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Accggtccgtccaaagacgacaccccgatggttcgttatggcggttaaccacgcttacgctggtcaggacatcgtttccaacgcttctgcaccactaactgcctgg
cgccgctggctaaagtcacacgacaaaattcggtatcgttgaagcgctgatgaccacggttcacgccactaccgctacgcagaaaaccgttgacggcccgctcaca
aagactggcgcgccggcgccgctcagaacatcatcccgtctctaccggcgctgctaaagctgtaggtaaagtgatcccggtctgaaacggcaactgacc
ggtatggcggtccgctaccgactccgaacgatccgtggttgacctgactgcccgtctggaaaaaccggctacttacaagaaattgt
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2. mdh (malate dehydrogenase) (Ma et al. 2007) band size 564 bp

mdh86F 5'-CCCAGCTTCCTCAGGTTCAAGA-3'

mdh628R 5'-CTGCATTCTGAATACGTTTGGTCA-3'

438 bp partial gene was used in analysis

example in *D. dadantii* 3937 genome

>mdh\_D\_dadantii\_3937

```
gctgtcgtatctgagccatattcccaccgatgaaatcaaaggttccagcggtgaagatgctaccccgtctggaaggcgcgatattgtactgatgtctgccgggg
tggccgtaagccgggatggatcgttccgatctgttaacgtgaacgcagggttgctgtaacctggttccgaaattgccgacttgcctaacgcttgcctgctgctg
attatcaccaatccggtcaataccacggtggcgattgctccgaagtgtgaagcaggccgctatatacaagacaaactgttggcgctcacgacgctggacatt
atccgttccagtacttttgcggaactgaaaggcaaacagccgaggccattgacgtgccggttatcgccggcactccggcgttaccatcctgccgttgcgtgac
ag
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3. rpoS (WALERON, WALERON, and ŁOJKOWSKA 2002) band size 920 bp

rpoSF 5'-ATGAGCCAAAGTACGCTGAA-3'

rpoSR 5'-ACCTGAATCTGACGAACACG-3'

792bp partial gene was used in analysis

example in *D. dadantii* 3937 genome (reverse complement)

>rpoS\_D\_dadantii\_3937

```
gacgtttttgacgacaaagcgttggcgaggagaagaaccagcgtatagcaccagctcagcaggaattgcttccagggaaactgctcagcgtgctggatgcaa
cccagctttatctgggagaaatcggctactcacctcttctgactgctgaagaagaagtttactttgccgctcggcgctacgcgcgatggttcatctcggccgatg
atcgagagtaacctgcggtggtggtgaaaatcgcccgctacaataatcggggactggcgctgctggatctgattgaagaaggaaacctcggttgatccgccc
agtcgagaagttgacctgaacggggttccgcttttcgacttacccacctggtgatccgtcagaccattgaacgggcatcatgaatcagacccgaccatccgt
ttaccatccatctgtaaaagaactcaatgtctacctgctaccgcacgcaactgtccacaagcttgatcatgaccagtgcggaagaatcggcagcggtg
gataagccggtggatgacgttaaccgatgctgctctcaacgagcgcacgtcggtggatacggcgtggcggggattcggaaggcgctgctggatattctg
gccgacgagaaggataacggcccgaagacaccacgcaggataacgatgaaacaaaatcgtaagtgtgttgaactgaacgaaaaacagcgtgaagt
ctggcccggcttttggctgctgggatgaagccgc
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4. proA (Gamma glutamylphosphate reductase) (Ma et al. 2007) band size 785bp

proAF1 5'-CGGYAATGCGGTGATTCTGCG-3'

proAR1 5'-GGGTACTGACCGCCACTTC-3'

636 bp partial gene was used in analysis

example in *D. dadantii* 3937 genome (reverse complement)

>proA\_D\_dadantii\_3937

```
aaagtaatccagcaggcgctggtcgaatcggcctgctgccgcccgcgattcaggcgattgaaagcccggatcgtgagctggatcaatcaactgctgaaactcgatcgc  
ctacgttgacatgctgattccccgcggcggcgcttgacacaagctatgccgcgagcattccaccattccgggtgatcaccggcggcattggcgtgtgccacatctat  
gtcgacgagtcgatggaattcgagccggcgtgagcgcgtgaaagtgattgtcaacgctaaaaccagcgtcccagcacctgcaacacggtggaaccctgctggatcaggg  
cattgccgcccgttcctgccgctgagcgcgctgaaacagtgagggtgagcttacatgcctgccgctgctgcccgcgtgaccagcggcccggcgcgag  
cgtcaccgcggtagaagccgcaaattatgatgacgaatggttgcgctggatctgaacgtgaagctggtcgcagatattgacgacccatcgatcatatccgtgagca  
cggcaccagcactctgacccatcctgactcgtccttaagccgtgctgagcaattcgtgctgaggtagattcctcggcgggtgatgtcaacgcc
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#### References

- Ma, B., Hibbing, M. E., Kim, H., Reedy, R. M., Yedidia, I., Breuer, J., et al. 2007. Host Range and Molecular Phylogenies of the Soft Rot Enterobacterial Genera *Pectobacterium* and *Dickeya*. *Phytopathology*. 97:1150–1163
- WALERON, M., WALERON, K., and ŁOJKOWSKA, E. 2002. Genotypic Characterisation of the *Erwinia* Genus by PCR-RFLP Analysis of *rpoS* Gene. *Plant Prot. Sci.* 38:288–290