

### Primer sequences used for MLST of *Ornithobacterium rhinotracheale* (ORT)

Gene	Protein product	Primer (5'→3') <sup>a</sup>	Fragment size used for MLST	Annealing temperature
<i>adk</i>	adenylate kinase-like kinase	Forward: GGCAGTGGAAAAGGAACTCA Reverse: TCTAAACTTCCTTCGCCGTTT	393 bp	52°C
<i>aroE</i>	shikimate 5-dehydrogenase	Forward: GGAATCATCGGCAGAAACAT Reverse: TGATGTTGGCATCTTGTGCT	489 bp	52°C
<i>fumC</i>	fumarase, class II	Forward: CACGCCACAAGGTTATGATG Reverse: TAAACGCACGGCTTCTTCTT	489 bp	52°C
<i>gdhA</i>	glutamate dehydrogenase/leucine dehydrogenase	Forward: TCTGGTAGAGCACCAAACCA Reverse: GCTTGTTTTGCAACCACTCA	480 bp	52°C
<i>mdh</i>	malate dehydrogenase (NAD)	Forward: CGCGAAGAATTAATCGGAAC Reverse: CTCTTACTTGCGCAACAGCA	519 bp	52°C
<i>pgi</i>	glucose-6-phosphate isomerase	Forward: AAAGCGACATTGCCAAACAT Reverse: TTTCGAGTTCCGCTCTCACT	492 bp	52°C
<i>pmi</i>	phosphomannose isomerase	Forward: TGATGTGCAAGGCAATGTTT Reverse: CTGTGTCGAGCGAAATGCTA	489 bp	52°C

### Additional primers used for MLST of ORT strains from pigeons

Gene	Protein product	Primer (5'→3')	Fragment size used for MLST	Annealing temperature
<i>gdhA</i>	<i>glutamate dehydrogenase/leucine dehydrogenase</i>	gdhAX-f: TCNGCAAAYATCCATGTAG	480 bp	54°C
		gdhAX-r: ACCGTTACACAAAATRTCTG		
<i>pgi</i>	<i>glucose-6-phosphate isomerase</i>	pgiX-r: TCRGATTTTCCAAARGCAAG	492 bp	52°C
<i>pmi</i>	<i>phosphomannose isomerase</i>	pmiX-r: ATTCACTTTCGATGACAG	489 bp	50°C

**Citation:**

Thieme S, Mühldorfer K, Gad, W, Lüscho D, Hafez HM (2016) Molecular Characterization of the Recently Emerged Poultry Pathogen *Ornithobacterium rhinotracheale* by Multilocus Sequence Typing. PLoS ONE 11(2): e0148158.  
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Thieme S, Hafez HM, Gutzer S, Warkentin N, Lüscho D, Mühldorfer K (in press) Multilocus sequence typing of *Ornithobacterium rhinotracheale* isolated from pigeons and birds of prey revealed new insights into its population structure. Veterinary and Animal Science. <http://dx.doi.org/10.1016/j.vas.2016.10.002>