

Supplementary Table S1: Origin of *Pasteurella multocida* strains isolated from clinical cases by animal species, organs, and regional and local origins in Hungary.

No.	Bacteria	ID	Species	Organ	Regio	Settlement
1	<i>Pasteurella multocida</i>	10906	goose	liver	Észak-Alföld	Kunszentmárton
2	<i>Pasteurella multocida</i>	11298	goose	liver	Dél-Alföld	Kiskunfélegyháza
3	<i>Pasteurella multocida</i>	11298	goose	lungs	Dél-Alföld	Kiskunfélegyháza
4	<i>Pasteurella multocida</i>	11788	goose	liver	Dél-Alföld	Kondoros
5	<i>Pasteurella multocida</i>	14832	goose	liver	Közép-Magyarország	Tatárszentgyörgy
6	<i>Pasteurella multocida</i>	15704	goose	liver	Észak-Magyarország	Cered
7	<i>Pasteurella multocida</i>	21958	goose	liver	Dél-Alföld	Szentes
8	<i>Pasteurella multocida</i>	21958	goose	lungs	Dél-Alföld	Szentes
9	<i>Pasteurella multocida</i>	22079	duck	liver	Dél-Dunántúl	Balatonszemes
10	<i>Pasteurella multocida</i>	22919	goose	liver	Dél-Alföld	Szentes
11	<i>Pasteurella multocida</i>	25054	goose	liver	Dél-Alföld	Szentes
12	<i>Pasteurella multocida</i>	37287	goose	liver	Dél-Alföld	Soltvadkert
13	<i>Pasteurella multocida</i>	41550	goose	liver	Közép-Magyarország	Dömösd
14	<i>Pasteurella multocida</i>	52681	goose	liver	Dél-Alföld	Bócsa
15	<i>Pasteurella multocida</i>	52682	goose	liver	Dél-Alföld	Bócsa
16	<i>Pasteurella multocida</i>	57991	goose	liver	Dél-Alföld	Bócsa
17	<i>Pasteurella multocida</i>	58612	goose	liver	Észak-Alföld	Öcsöd
18	<i>Pasteurella multocida</i>	60458	goose	liver	Észak-Alföld	Öcsöd
19	<i>Pasteurella multocida</i>	60463	goose	liver	Észak-Alföld	Öcsöd
20	<i>Pasteurella multocida</i>	66107	goose	liver	Észak-Alföld	Öcsöd
21	<i>Pasteurella multocida</i>	71764	goose	bone marrow	Észak-Alföld	Öcsöd
22	<i>Pasteurella multocida</i>	72106	goose	liver	Észak-Alföld	Öcsöd
23	<i>Pasteurella multocida</i>	81753	goose	liver	Közép-Magyarország	Taksony
24	<i>Pasteurella multocida</i>	90742	duck	liver	Dél-Alföld	Kiskunmajsa
25	<i>Pasteurella multocida</i>	92197	duck	liver	Dél-Alföld	Forráskút
26	<i>Pasteurella multocida</i>	96174	goose	liver	Közép-Magyarország	Tatárszentgyörgy
27	<i>Pasteurella multocida</i>	106347	goose	liver	Észak-Alföld	Debrecen

Supplementary Table S2: The results of species identification using the MALDI-TOF device.

No.	Matched Pattern	log (score) (Conf.)	*NCBI Identifier
1	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.44 (+++)	747
2	<i>Pasteurella multocida</i> A244_07 FLR	2.27 (+++)	747
3	<i>Pasteurella multocida</i> A244_07 FLR	2.20 (+++)	747
4	<i>Pasteurella multocida</i> A244_07 FLR	2.27 (+++)	747
5	<i>Pasteurella multocida</i> besSt7 THL	2.21 (+++)	747
6	<i>Pasteurella multocida</i> A244_07 FLR	2.46 (+++)	747
7	<i>Pasteurella multocida</i> A244_07 FLR	2.26 (+++)	747
8	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.33 (+++)	747
9	<i>Pasteurella multocida</i> A244_07 FLR	2.31 (+++)	747
10	<i>Pasteurella multocida</i> A244_07 FLR	2.31 (+++)	747
11	<i>Pasteurella multocida</i> A244_07 FLR	2.37 (+++)	747
12	<i>Pasteurella multocida</i> A129_06 FLR	2.29 (+++)	747
13	<i>Pasteurella multocida</i> A244_07 FLR	2.34 (+++)	747
14	<i>Pasteurella multocida</i> A129_06 FLR	2.21 (+++)	747
15	<i>Pasteurella multocida</i> A244_07 FLR	2.34 (+++)	747
16	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.27 (+++)	747
17	<i>Pasteurella multocida</i> A244_07 FLR	2.38 (+++)	747
18	<i>Pasteurella multocida</i> A244_07 FLR	2.26 (+++)	747
19	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.27 (+++)	747
20	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.24 (+++)	747
21	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.28 (+++)	747
22	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.37 (+++)	747
23	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.30 (+++)	747
24	<i>Pasteurella multocida</i> A244_07 FLR	2.19 (+++)	747
25	<i>Pasteurella multocida</i> ssp <i>multocida</i> CIP 56_3 CIP	2.27 (+++)	747
26	<i>Pasteurella multocida</i> A244_07 FLR	2.24 (+++)	747
27	<i>Pasteurella multocida</i> A244_07 FLR	2.34 (+++)	747

+++ High Confidence Identification (2.00 – 3.00 range)

\*NCBI: National Center for Biotechnology Information

Supplementary Table S3: MIC values per strain of active substances with CLSI-derived breakpoints for *Pasteurella multocida*.

No.	PEN	AMC	CTO	SPE	FLO	CLO	TIM	ENR
	MIC (µg/mL)							
1	0.06	0.125	0.015	8	0.25	0.5	4	1
2	0.06	0.125	0.015	8	0.25	0.5	8	1
3	0.125	0.125	0.015	4	0.25	0.5	4	0.5
4	0.06	0.125	0.015	8	0.25	0.5	2	0.015
5	0.06	0.125	0.015	8	0.25	0.5	4	0.015
6	0.06	0.125	0.06	8	0.25	0.5	4	0.007
7	0.125	0.125	0.015	4	0.25	0.5	4	0.007
8	0.06	0.125	0.015	8	0.25	0.5	4	0.007
9	0.06	0.125	0.015	8	0.25	0.5	8	0.015
10	0.06	0.125	0.015	8	0.25	0.5	16	0.015
11	0.06	0.125	0.015	8	0.25	0.5	8	0.007
12	0.06	0.125	0.015	8	0.25	0.5	4	0.5
13	0.06	0.125	0.06	8	0.25	0.25	4	0.015
14	0.125	0.125	0.015	8	0.25	0.5	8	1
15	0.06	0.125	0.015	8	0.25	0.5	4	1
16	0.06	0.06	0.015	8	0.25	0.5	8	0.007
17	0.06	0.125	0.015	8	0.25	0.5	16	0.007
18	0.06	0.125	0.015	8	0.25	0.5	8	0.5
19	0.06	0.06	0.015	8	0.25	0.5	8	0.5
20	0.06	0.125	0.015	8	0.25	0.5	4	0.5
21	0.06	0.125	0.015	8	0.25	0.5	4	0.5
22	0.06	0.125	0.015	8	0.25	0.5	8	1
23	0.06	0.125	0.015	8	0.25	0.5	4	0.007
24	0.06	0.125	0.015	8	0.25	0.5	8	0.015
25	0.06	0.125	0.015	8	0.25	0.5	8	1
26	0.06	0.125	0.015	16	0.25	0.5	4	0.015
27	0.06	0.125	0.015	8	0.25	0.5	4	0.007

PEN - penicillin; AMC - amoxicillin-clavulanic acid; CTO - ceftiofur; SPE - spectinomycin; FLO - florfenicol; CLO - chloramphenicol; TIM - tilmicosin; ENR – enrofloxacin

Supplementary Table S4: MIC values for active substances without clinical CLSI breakpoints for *Pasteurella multocida* strains and their MIC<sub>50</sub> and MIC<sub>90</sub> values.

No.	TIA	PSA	CXM	IMI	TIL	CTR	AMX	LIN	COL	DOX	MAR	CLX	GEN	CLI	LEV	CFQ	GAT	LSP
	MIC (µg/mL)																	
1	16	0.5	0.015	0.25	32	0.015	0.125	32	2	0.015	2	4	2	64	0.5	0.03	0.5	16
2	32	0.5	0.015	0.25	32	0.015	0.125	32	16	0.015	2	2	2	64	0.5	0.03	0.5	32
3	16	1	0.015	0.25	32	0.015	0.125	32	2	0.03	1	4	2	64	0.25	0.03	0.25	32
4	32	32	0.015	0.25	32	0.015	0.125	32	0.5	0.06	0.03	4	2	128	0.007	0.03	0.03	32
5	8	8	0.015	0.125	16	0.015	0.125	32	0.25	0.06	0.06	2	2	32	0.015	0.03	0.015	32
6	8	8	0.015	0.5	32	0.03	0.125	32	4	0.06	0.03	2	2	64	0.007	0.03	0.015	32
7	16	0.125	0.015	0.25	32	0.015	0.125	32	2	0.015	0.015	4	2	64	0.5	0.03	0.25	32
8	16	4	0.015	0.06	32	0.007	0.125	16	4	0.015	0.015	2	2	32	0.007	0.03	0.06	32
9	32	32	0.015	0.25	32	0.015	0.125	32	4	2	0.06	4	2	64	0.015	0.03	0.015	32
10	32	8	0.015	0.125	32	0.015	0.125	32	2	0.125	0.015	4	2	128	0.007	0.03	0.015	32
11	128	32	0.015	0.25	32	0.015	0.125	32	1	16	0.03	16	2	128	0.015	0.03	0.015	32
12	16	0.06	0.015	0.25	32	0.015	0.125	32	0.5	0.03	1	2	2	32	0.5	0.03	0.25	32
13	16	1	0.015	0.25	16	0.015	0.125	32	0.5	0.015	0.125	4	2	32	0.03	0.03	0.03	32
14	32	1	0.015	0.25	32	0.015	0.125	32	1	0.06	2	2	2	64	0.5	0.03	0.25	32
15	16	8	0.015	0.25	32	0.015	0.125	32	2	0.03	2	2	2	64	0.5	0.03	0.5	32
16	64	1	0.015	0.06	32	0.015	0.125	32	2	16	0.03	4	4	128	0.015	0.03	0.015	32
17	64	1	0.015	0.06	32	0.015	0.125	32	1	0.06	0.06	4	2	128	0.015	0.03	0.015	32
18	16	1	0.015	0.125	32	0.015	0.125	32	1	0.015	1	2	2	64	0.5	0.03	0.25	32
19	16	0.5	0.015	0.125	32	0.015	0.125	32	1	0.03	2	2	2	32	0.5	0.03	0.25	32
20	16	0.5	0.015	0.125	32	0.015	0.125	32	1	0.015	2	2	2	64	0.5	0.03	0.25	32
21	16	1	0.015	0.25	32	0.015	0.125	32	4	0.015	1	2	2	64	0.5	0.03	0.25	32
22	16	1	0.015	0.25	32	0.015	0.125	32	4	0.015	1	2	2	64	0.25	0.03	0.25	32
23	16	0.125	0.015	0.125	32	0.015	0.125	32	2	0.03	0.03	2	2	64	0.007	0.03	0.007	32
24	16	8	0.015	0.25	16	0.015	0.125	32	1	0.015	0.06	2	2	32	0.015	0.03	0.25	32
25	16	1	0.015	0.25	32	0.015	0.125	32	8	0.03	1	2	2	16	0.5	0.03	0.5	32
26	8	0.5	0.015	0.25	32	0.015	0.125	32	0.25	0.03	0.03	2	2	64	0.015	0.03	0.015	16
27	16	1	0.015	0.125	32	0.015	0.125	32	4	0.03	0.03	2	4	64	0.015	0.03	0.007	32
MIC <sub>50</sub>	16	1	0.015	0.25	32	0.015	0.125	32	2	0.03	0.06	2	2	64	0.015	0.03	0.06	32
MIC <sub>90</sub>	32	8	0.015	0.25	32	0.015	0.125	32	4	0.125	2	4	2	128	0.5	0.03	0.5	32

TIA - tiamulin; PSA - potent sulphonamide (trimethoprim - sulphamethoxazole, ratio 1:19); CXM - cefotaxime; IMI - imipenem; TIL - tilozin; CTR - ceftriaxone; AMX - amoxicillin; LIN - lincomycin; COL - colistin; DOX - doxycycline; MAR - marbofloxacin; CLX - cefalexin; GEN - gentamicin; CLI - clindamycin; LEV - levofloxacin; CFQ - cefquinome; GAT - gatifloxacin; LSP – lincomycin - spectinomycin (ratio 2:1)