

Table S1. Laboratory strains and clinical isolates used in this study. Isolates included commonly used laboratory strains and recent clinical isolates.

Strain	Common name	Serotype ^a / phenotype	Source
<i>P. multocida</i> subsp. <i>gallicida</i> P1059	WT P1059	A:3/ encapsulated	National Animal Disease Center (NADC)
<i>P. multocida</i> subsp. <i>gallicida</i> P1059 Δ <i>hyaE</i>	P1059 Δ <i>hyaE</i>	Non- encapsulated	This study
<i>P. multocida</i> subsp. <i>multocida</i> P1062	WT P1062	A:3/ encapsulated	NADC
<i>P. multocida</i> subsp. <i>multocida</i> P1062 Δ <i>hyaE</i>	P1062 Δ <i>hyaE</i>	Non- encapsulated	This study
<i>P. multocida</i> X73	WT X73	A:1/ encapsulated	NADC
<i>P. multocida</i> X73 Δ <i>hyaD</i>	X73 Δ <i>hyaD</i>	Non- encapsulated	This study
<i>Pasteurella multocida</i> C0513	WT C0513	A/ encapsulated	Experimental calf infection ³

<i>Pasteurella multocida</i> C0513-P5	C0513-P5	A (capsule-deficient)	This study
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Clinical Isolates	Location of Origin	Host species and infection site	Serogroup or Serotype
756	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken heart, spleen, bone marrow	F:9
765	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Turkey liver, spleen, lung	A
704	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken wattle	A:8

801	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken heart, spleen, bone marrow	A
785	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken liver, spleen, heart	F:9
775	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Turkey lung	A:3,4
741	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken bone marrow	A:3,4
742	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken heart, spleen, bone marrow	A:1

745	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken heart, spleen, bone marrow	A:3,4
747	Virginia Department of Agriculture, Division of Animal and Food Industry Services	Chicken heart, spleen	A
232	Oklahoma State University	Bovine lung	A
9877	Oklahoma State University	Bovine lung	A
96031276	Oklahoma State University	Bovine lung	A
00111378	Oklahoma State University	Bovine nasal	A
96020298	Oklahoma State University	Bovine lung	A
134	Oklahoma State University	Bovine lung	A
95101538	Oklahoma State University	Bovine lung	A

13-1367	Virginia-Maryland College of Veterinary Medicine	Dog ear	A
H1	Virginia-Maryland College of Veterinary Medicine	Cat mouth	A
12B- 21481	University of Wyoming	Bovine liver, lung, small intestine	A
	Virginia-Maryland College of Veterinary Medicine	Porcine lung	D
Pm70	ATCC (BAA-1909)	Chicken	F
Pm70	Dr. Kapur, Pennsylvania State University	Chicken	F
989	Virginia-Maryland College of Veterinary Medicine	Turkey	

^aA standard system for designating serotypes of *P. multocida* was established using a combination of capsular serogroup typing and LPS serovar typing systems (86).