

Table S1. Studies of melioidosis vaccines in animal models

Ref.	Vaccine	Animal model	Immunization  route*	Challenge in BALB/c mice model			% survival
				Strain	Route*	Dose  (CFU)	
<i>Live attenuated vaccines</i>							
[23]	Acapsular polysaccharide mutant	BALB/c and Porton mice	i.p.	576	i.v.	1 x 10 <sup>4</sup>	0% at d 18
[24]	<i>ilvI</i> (branched chain amino acid synthesis) mutant	BALB/c mice	i.p.	576	i.p.	1 x 10 <sup>6</sup>	80% at d 35
[25]	<i>ilvI</i> (branched chain amino acid synthesis) mutant	BALB/c mice	i.p.	576	i.p.	1 x 10 <sup>6</sup>	40% at d 75
[26]	<i>BipD</i> (type III secretion system) mutant	BALB/c mice	i.p.	576	i.p.	1 x 10 <sup>4</sup>	60% at d 72
[27]	<i>serC</i> (Serine biosynthesis) mutant	BALB/c mice	i.p.	576, K96243	i.p.	1 x 10 <sup>4</sup>	>70% at d 30
[28]	<i>aroB</i> (Aromatic amino acid biosynthesis) mutant	BALB/c mice	i.n.	K96243	i.n.	1 x 10 <sup>3</sup>	0% at d 10
[29]	<i>purN</i> (Purine biosynthesis) mutant	BALB/c mice	i.p.	E8	i.v.	1 x 10 <sup>3</sup>	0% at d 35
[29]	<i>purN</i> (Purine biosynthesis) mutant	BALB/c mice	i.n.	E8	i.n.	1 x 10 <sup>3</sup>	0% at d 35
[30]	<i>aroC</i> (Sucrose biosynthesis) mutant	BALB/c & C57BL/6 mice	i.p.	A2	i.p.	6 x 10 <sup>3</sup>	80% at 5 mo
[31]	CL04 strain from a patient with chronic melioidosis	BALB/c & C57BL/6 mice	Unknown	NTCC 13178	Unknown	7 x 10 <sup>2</sup>	73% at d 18
[32]	<i>asd</i> (aspartate-β-semialdehyde dehydrogenase) mutant	BALB/c	i.n.	1026b	i.n.	4 x 10 <sup>3</sup>	20% at d 40
[33]	<i>ilvI</i> mutant with CpG oligodeoxynucleotide	BALB/c mice	i.p.	576	i.n.	1 x 10 <sup>2</sup>	0% at d 15
[33]	<i>ilvI</i> mutant with CpG oligodeoxynucleotide	BALB/c mice	i.n.	576	i.n.	1 x 10 <sup>2</sup>	40% at d 15

<b><i>Killed whole cell vaccines</i></b>							
[41]	Heat killed <i>B. pseudomallei</i> , unknown strain	Unknown	i.p.	Unknown	i.p.	2 x 10 <sup>6</sup>	100% at d 7
[42]	Heat killed <i>B. pseudomallei</i> strain NCTC13179	BALB/c mice	s.c.	NCTC13179	i.v.	20	0% at d 40
[43]	Heat killed LPS-negative <i>B. pseudomallei</i> mutant	BALB/c mice	i.p.	K96243	i.p.	6.5 x 10 <sup>4</sup>	80% at d 35
[44]	Heat killed <i>B. pseudomallei</i> strain 576	BALB/c mice	i.p.	K96243	i.p.	4 x 10 <sup>4</sup>	50% at d 45
[44]	Heat killed <i>B. pseudomallei</i> strain K96243	BALB/c mice	i.p.	K96243	i.p.	4 x 10 <sup>4</sup>	50% at d 45
[44]	Heat killed <i>B. pseudomallei</i> strain K96243	BALB/c mice	i.p.	K96243	i.n.	92	0% at d 45
[44]	Heat killed <i>B. mallei</i> strain 23344	BALB/c mice	i.p.	K96243	i.p.	4 x 10 <sup>4</sup>	70% at d 45
[44]	Heat killed <i>B. thailandensis</i> strain E27	BALB/c mice	i.p.	K96243	i.p.	4 x 10 <sup>4</sup>	60% at d 45
[45]	Heat killed <i>B. pseudomallei</i> 1026b with CLDC adjuvants	BALB/c mice	i.n.	1026b	i.n.	7.5 x 10 <sup>3</sup>	44% at d 40
<b><i>Subunit vaccines</i></b>							
[53]	Capsular polysaccharide	BALB/c mice	i.p.	NCTC4845	i.p.	2 x 10 <sup>4</sup>	0% at d 28
[53]	Lipopolysaccharide	BALB/c mice	i.p.	NCTC4845	i.p.	2 x 10 <sup>4</sup>	50% at d 35
[53]	Capsular polysaccharide	BALB/c mice	i.p.	NCTC4845	i.n.	12.5	0% at d 5
[53]	Lipopolysaccharide	BALB/c mice	i.p.	NCTC4845	i.n.	12.5	0% at d 5
[54]	<i>LolC</i> (ATP binding cassette system)	BALB/c mice	i.p.	K96243	i.p.	4 x 10 <sup>4</sup>	80% at d 42
[54]	<i>LolC</i> (ATP binding cassette system)	BALB/c mice	i.p.	576	i.p.	6.6 x 10 <sup>5</sup>	30% at d 42
[55]	Bip proteins	BALB/c mice	i.p.	Ashdown	i.p.	970	0% at d 5

[56]	Omp3 and Omp7 (Outer membrane proteins)	BALB/c mice	i.p.	D286	i.p.	1 x 10 <sup>6</sup>	50% at d 21
[57]	Omp85 (Outer membrane protein)	BALB/c mice	i.p.	D286	i.p.	1 x 10 <sup>6</sup>	70% at d 15
[58]	Peptide mimotopes of EPS	BALB/c mice	i.v.	NCTC4845	i.p.	4.7 x 10 <sup>4</sup>	0% at d 30
[59]	<i>Hcp2</i> (integral surface-associated component of T6SS)	Syrian hamster	i.p.	K96243	i.p.	5 x 10 <sup>5</sup>	83% at d 42
[60]	Lipopolysaccharide from <i>B. thailandensis</i>	BALB/c mice	i.p.	K96243	i.p.	2 x 10 <sup>4</sup>	50% at d 35
[61]	Outer membrane vesicle	BALB/c mice	s.c.	1026b	aerosol	1 x 10 <sup>3</sup>	60% at d 14
[61]	Outer membrane vesicle	BALB/c mice	i.n.	1026b	aerosol	1 x 10 <sup>3</sup>	20% at d 14
<b><i>Naked DNA vaccines</i></b>							
[63]	<i>fliC</i> gene	BALB/c mice	i.m.	16 local strains	i.v.	1 x 10 <sup>5</sup>	83% at d 7
[64]	<i>fliC</i> gene with CpG oligodeoxynucleotide	BALB/c mice	i.m.	16 local strains	i.v.	1 x 10 <sup>5</sup>	93% at d 14
<b><i>Dendritic cell DNA vaccines</i></b>							
[66]	Dendritic cell pulsed with heat-killed whole cell <i>B. pseudomallei</i>	BALB/c mice	i.d. and i.n.	NCTC4845	i.p.	5.3 x 10 <sup>4</sup>	60% at d 35
[67]	Dendritic cell pulsed with heat-killed whole cell <i>B. pseudomallei</i> in combination with CpG ODN	BALB/c mice	i.d.	NCTC4845, K96243, 576	i.p.	1 x 10 <sup>4</sup>	77% at d 42

\* i.p. (intraperitoneal), i.v. (intravenous), i.n. (intranasal), i.m. (intramuscular), s.c. (subcutaneous)