

Table S1 *N. meningitidis* strains used in this study.

Strain	Characteristics: Serogroup :Serotype :Serosubtype (cc ¹)	Isolation site	Origin
ST-11 isolates			
LNP13143	W: 2a: P1.5,2 (cc:11)	CSF ²	NRCM ³
LNP 17592	W: 2a: P1.5,2 (cc:11)	Blood	NRCM
LNP19008	C: 2a: P1.5, 2 (cc:11)	Blood	NRCM
LNP 19995	W: 2a:P1.5, 2 (cc:11)	CSF	NRCM
LNP 20342	B: 2a: P1. 5 (cc:11)	CSF	NRCM
LNP 20553	C: 2a: P1.5 (cc:11)	CSF	NRCM
LNP21515	C:2a: P1. 5 (cc:11)	CSF	NRCM
LNP21678	C:2a: P1. 5 (cc:11)	Blood	NRCM
LNP21996	B: 2a: P1.5 (cc:11)	Blood	NRCM
LNP24198	C:2a:P1.7, 1 (cc:11)	Blood	NRCM
LNP25496	C: 2a: P1.5 (cc:11)	CSF	NRCM
LNP25501	C:2a:P1.5 (cc:11)	CSF	NRCM
LNP25512	C:NT ⁴ : NST ⁵ (cc:11)	Blood	NRCM
LNP25516	C: 2a: P1.5 (cc:11)	Blood	NRCM
LNP25524	C:2a: P1. 5 (cc:11)	Blood	NRCM
LNP26653	C:15: P1.4 (cc:11)	Blood	NRCM
LNP27531	W:14: P1. 5, 2 (cc:11)	Synovial fluid	NRCM
LNP27557	B: NT: P1. 7, 1 (cc:11)	Blood	NRCM
LNP27564	W: 2a: P1.5, 2 (cc:11)	Blood	NRCM
Carriage isolates			
LNP117	NG ⁶ :NT:P1.6 (cc:22)	Nasopharynx	
LNP124	NG: 15: P1.6 (cc:NA ⁷)	Nasopharynx	NRCM
LNP128	NG: 1: P1.6 (cc:41/44)	Nasopharynx	NRCM
LNP133	29E: NT: P1.5, 2 (cc: 60)	Nasopharynx	NRCM
LNP280	B: NT: P1.9 (cc: 41/44)	Nasopharynx	NRCM
LNP292	Y: 15: P1.16 (cc:174)	Nasopharynx	NRCM
LNP597	NG: 1: P1.6 (cc: 41/44)	Nasopharynx	NRCM
LNP858	B: 1: P1.6 (cc: 461)	Nasopharynx	NRCM

LNP1128	B: 1: P1.14 (cc: 213)	Nasopharynx	NRCM
LNP1185	NG: NT:NST: (cc:NA)	Nasopharynx	NRCM
LNP1407	B: NT: P1.14 (cc: 213)	Nasopharynx	NRCM
LNP1632	B: 15: P1.7, 16 (cc: 32)	Nasopharynx	NRCM
LNP1769	NG: 15: P1.6 (cc: NA)	Nasopharynx	NRCM
LNP2073	B: 4: P1.14 (cc: 162)	Nasopharynx	NRCM
LNP2404	B: NT: NST (cc: 41/44)	Nasopharynx	NRCM
LNP3174	NG: 15: P1.6 (cc: NA)	Nasopharynx	NRCM
LNP 20642	C: NT: NST (cc: 334)	Expectoration	NRCM
LNP 21019	B: NT:P1.14 (cc: 35)	Expectoration	NRCM
Recombinant meningococcal strains			
1999 Δ <i>iga</i>	Isogenic mutant of the invasive isolate LNP19995, deficient in IgA protease expression (<i>iga::aad</i>), Spec ^{R8}	N/A	This study
21019 Δ <i>iga</i>	Isogenic mutant of the carriage isolate LNP21019, deficient in IgA protease expression (<i>iga::aad</i>), Spec ^R	N/A	This study
19995 Δ <i>iga/iga</i> ₁₉₉₉₅	Recombinant strain that resulted from substitution of chromosomal <i>iga::aad</i> copy of 19995 Δ <i>iga</i> with intact <i>iga</i> allele of LNP19995, Ery ^{R9}	N/A	This study
19995 Δ <i>iga/iga</i> ₂₁₀₁₉	Recombinant strain that resulted from substitution of chromosomal <i>iga::aad</i> copy of 19995 Δ <i>iga</i> with intact <i>iga</i> allele of LNP21019, Ery ^R	N/A	This study
21019 Δ <i>iga/iga</i> ₁₉₉₉₅	Recombinant strain that resulted from substitution of chromosomal <i>iga::aad</i> copy of 21019 Δ <i>iga</i> with intact <i>iga</i> allele of LNP19995, Ery ^R	N/A	This study
21019 Δ <i>iga/iga</i> ₂₁₀₁₉	Recombinant strain that resulted from substitution of chromosomal <i>iga::aad</i> copy of 21019 Δ <i>iga</i> with intact <i>iga</i> allele of LNP21019, Ery ^R	N/A	This study
19995GFP	Recombinant strain isogenic of LNP19995, expressing constitutively a chromosomal copy of green fluorescent protein GFP	N/A	(18)

1 : Clonal complex, 2 : Cerebrospinal fluid, 3 : National Reference Centre for Meningococci, 4 : Non-typeable, 5 : Non-serosubtypeable, 6 : Non-groupeable, 7 : Non assigned, 8 : Spectinomycin resistant, 9: Erythromycin resistant.