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Table. Reported frameshifts and mutations leading to premature stop codons (PMSM) in gene *inlA*.

Allele (BIGSdb)	PMSM mutation type ¹	Mutation position (nt)	Mutation position (aa)	Length truncated InlA (aa)	Lineage	Sublineage	Reference
inlA_138	1	1818 (T → A)		605	I	SL5	Nightingale <i>et al.</i> , 2005
inlA_125	2	1966 (C → T)		655	I	SL224	Nightingale <i>et al.</i> , 2005
inlA_91	3	2100 (C → G)		699	II	SL321	Nightingale <i>et al.</i> , 2005
inlA_28; inlA_48	4	12 (deletion A)	KRYVW(JNDMYG)	8	II	SL9, SL199	Felicio <i>et al.</i> , 2007
inlA_40	5	565 (C → T)		188	II	SL31	Van Stelten & Nightingale, 2008
inlA_49	6	1474 (C → T)	Q(492)Stop	491	II	SL121	Olier <i>et al.</i> , 2003
(none yet)	7	1684 (C→T)		561			Van Stelten & Nightingale, 2008
inlA_43	8	1380 (G → A)		459	II	SL9	Rousseaux <i>et al.</i> , 2004
(none yet)	9	1540 (deletion G)		518			Rousseaux <i>et al.</i> , 2004
(none yet)	10	1961 (insertion T)		676			Rousseaux <i>et al.</i> , 2004
inlA_44; inlA_301	11	2054 (G → A)	W(685)Stop	684	II	SL9	Rousseaux <i>et al.</i> , 2004
(none yet)	12	1637 (deletion A)		576			Jonquière <i>et al.</i> , 1998
(none yet)	13	1579 (A → T)		526			Handa-Miya <i>et al.</i> , 2007
inlA_45	14	1615 (C → T)		538	II	SL9	Ragon <i>et al.</i> , 2008
inlA_35	15	229 (C → T)		76	II	SL13	Van Stelten <i>et al.</i> , 2010
inlA_67; inlA_69; inlA_231	19	976 (G → T)	E(326)Stop	325	II	SL9	Gelbičová <i>et al.</i> , 2015
inlA_167	20	288 (C → A)		95	I	SL1	Moura <i>et al.</i> , 2016
inlA_165	21	806 (T → A)		268	I	SL489	Moura <i>et al.</i> , 2016
inlA_162	22	1756 (C → T)		585	I	SL2	Moura <i>et al.</i> , 2016
inlA_150	23	1939 (A → T)		646	I	SL3	Moura <i>et al.</i> , 2016
inlA_168	24	13 (C → T)		4	II	SL90	Moura <i>et al.</i> , 2016
inlA_41	25	12 (insertion A)		25	II	SL193, SL196	Moura <i>et al.</i> , 2016
inlA_158	26	277 (G → T)		92	II	SL7	Moura <i>et al.</i> , 2016
inlA_68	27	576 (insertion T)		194	II	SL9	Moura <i>et al.</i> , 2016
inlA_152	28	736-738 (CCA→TAG)		245	II	SL101	Moura <i>et al.</i> , 2016
inlA_47	29	1635 (deletion A)		576	II	SL9	Moura <i>et al.</i> , 2016
inlA_42	30	1741 (C → T)		580	II	SL7	Moura <i>et al.</i> , 2016
inlA_302	31	2208 (deletion A)		753	I	SL5	Kurpas <i>et al.</i> , 2020
inlA_323	32	1041 (C → A)		346	I	SL3	Tsai <i>et al.</i> , 2022
(none yet)	33	937 (deletion C)		312			Ji <i>et al.</i> , 2023

¹ As summarized by Gelbičová *et al.*, 2015 and Moura *et al.*, 2016.

References

- Felicio *et al.* (2007) Recurrent and sporadic *Listeria monocytogenes* contamination in alheiras represents considerable diversity, including virulence-attenuated isolates. *Appl Environ Microbiol* 73:3887–3895.
- Gelbičová *et al.* (2015) A novel mutation leading to a premature stop codon in *inlA* of *Listeria monocytogenes* isolated from neonatal listeriosis. *New Microbiol* 38:293–296.
- Handa-Miya *et al.* (2007) Nonsense-mutated *inlA* and *prfA* not widely distributed in *Listeria monocytogenes* isolates from ready-to-eat seafood products in Japan. *Int J Food Microbiol* 117:312-318.
- Ji *et al.* (2023) Whole-genome sequencing reveals genomic characterization of *Listeria monocytogenes* from food in China. *Front. Microbiol.* 13:1049843.
- Jonquière *et al.* (1998) The *inlA* gene of *Listeria monocytogenes* LO28 harbors a nonsense mutation resulting in release of internalin. *Infect Immun* 66:3420-3422.
- Kurpas *et al.* (2020) Genomic characterization of *Listeria monocytogenes* isolated from ready-to-eat meat and meat processing environments in Poland. *Front Microbiol.* 11:1412.
- Moura *et al.* (2016) Whole genome-based population biology and epidemiological surveillance of *Listeria monocytogenes*. *Nature Microbiol* 2:16185.
- Nightingale *et al.* (2005) Select *Listeria monocytogenes* subtypes commonly found in foods carry distinct nonsense mutations in *inlA*. *Appl Environ Microbiol* 71:8764–8772.
- Olier *et al.* (2003) Expression of truncated internalin A is involved in impaired internalization of some *Listeria monocytogenes* isolates carried asymptotically by humans. *Infect Immun* 71:1217–1224.
- Ragon *et al.* (2008) A new perspective on *Listeria monocytogenes* evolution. *PLoS Pathog* 4.
- Rousseaux *et al.* (2004) Use of PCR-restriction fragment length polymorphism of *inlA* for rapid screening of *Listeria monocytogenes* strains deficient in the ability to invade Caco-2 cells. *Appl Environ Microbiol* 70:2180–2185.
- Tsai *et al.* (2022) Genomic Surveillance of *Listeria monocytogenes* in Taiwan, 2014 to 2019. *Microbiol Spectr.* 10:e0182522.
- Van Stelten & Nightingale (2008) Development and implementation of a multiplex single-nucleotide polymorphism genotyping assay for detection of virulence-attenuating mutations in the *Listeria monocytogenes* virulence-associ
- Van Stelten *et al.* (2010) Revelation by single-nucleotide polymorphism genotyping that mutations leading to a premature stop codon in *inlA* are common among *Listeria monocytogenes* isolates from ready-to-eat foods but not h