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## Genomic characteristics of M1<sub>DK</sub>

A complete M1<sub>DK</sub> genome generated from hybrid Illumina NextSeq/Nanopore minion data is available for biosample SAMEA113551919 or at [https://raw.githubusercontent.com/ssi-dk/M1DK\\_reference\\_genome/main/assemblies/DK\\_iGAS\\_2022\\_0442.fasta](https://raw.githubusercontent.com/ssi-dk/M1DK_reference_genome/main/assemblies/DK_iGAS_2022_0442.fasta)

Supplementary table 1:

15 core genome SNPs which characterize M1<sub>DK</sub>, listed by their position in the genome of reference strain MGAS50005. All listed SNPs are found in 100% of M1<sub>DK</sub> and none of the M1<sub>UK</sub> or M1<sub>global</sub> strains found in Denmark.

Position in MGAS50005	Gene locus	Gene	Ref	SNP
50024	M5005_Spy0031	purK	A	G
600192	M5005_Spy0596		T	C
655648	Intergenic	Intergenic	C	T
751431	M5005_Spy0750		G	A
798142	M5005_Spy0793		C	T
874083	M5005_Spy0883		G	A
890776	M5005_Spy0903	oadB	G	A
908687	M5005_Spy0920		C	T
948344	M5005_Spy0957		A	C
967436	M5005_Spy0980		A	G
1045871	M5005_Spy1073	dltA	G	A
1058475	M5005_Spy1084		G	A
1062670	M5005_Spy1088	obg	G	A
1272188	M5005_Spy1313		T	C
1484362	M5005_Spy1529	shp	C	A

## Accessory genome

The only consistent difference in the accessory genome content between M1<sub>DK</sub> and the M1<sub>global</sub> strains it has evolved from is the presence of the speC-containing bacteriophage. The phage is 42kb and contains a total of 54 different genes, including the DNase mf2, but mostly of unknown function. In the assembly for biosample SAMEA113551919 (DK\_iGAS\_2022\_0442) the bacteriophage is located at positions 556066-898405. The bacteriophage is also found in full in Genbank entry CP060268.1 at positions 548755- 590101 with 98% similarity.