

African Swine Fever: virus isolates

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Comparison of genomes of African swine fever virus isolates from Cameroon, other African countries and Europe

Determination of genetic relationship between ASF virus isolates from Cameroon, other African countries and Europe by restriction enzyme site mapping of their genomes.

Introduction

Materials and methods

Results

Restriction enzyme analysis of the genomes of European and Cameroon ASF virus isolates

Comparison of BamHI restriction enzyme site maps of genomes of European and Cameroon isolates of ASFV

Restriction enzyme analysis of the genomes of ASFV isolates from Cameroon and other African countries

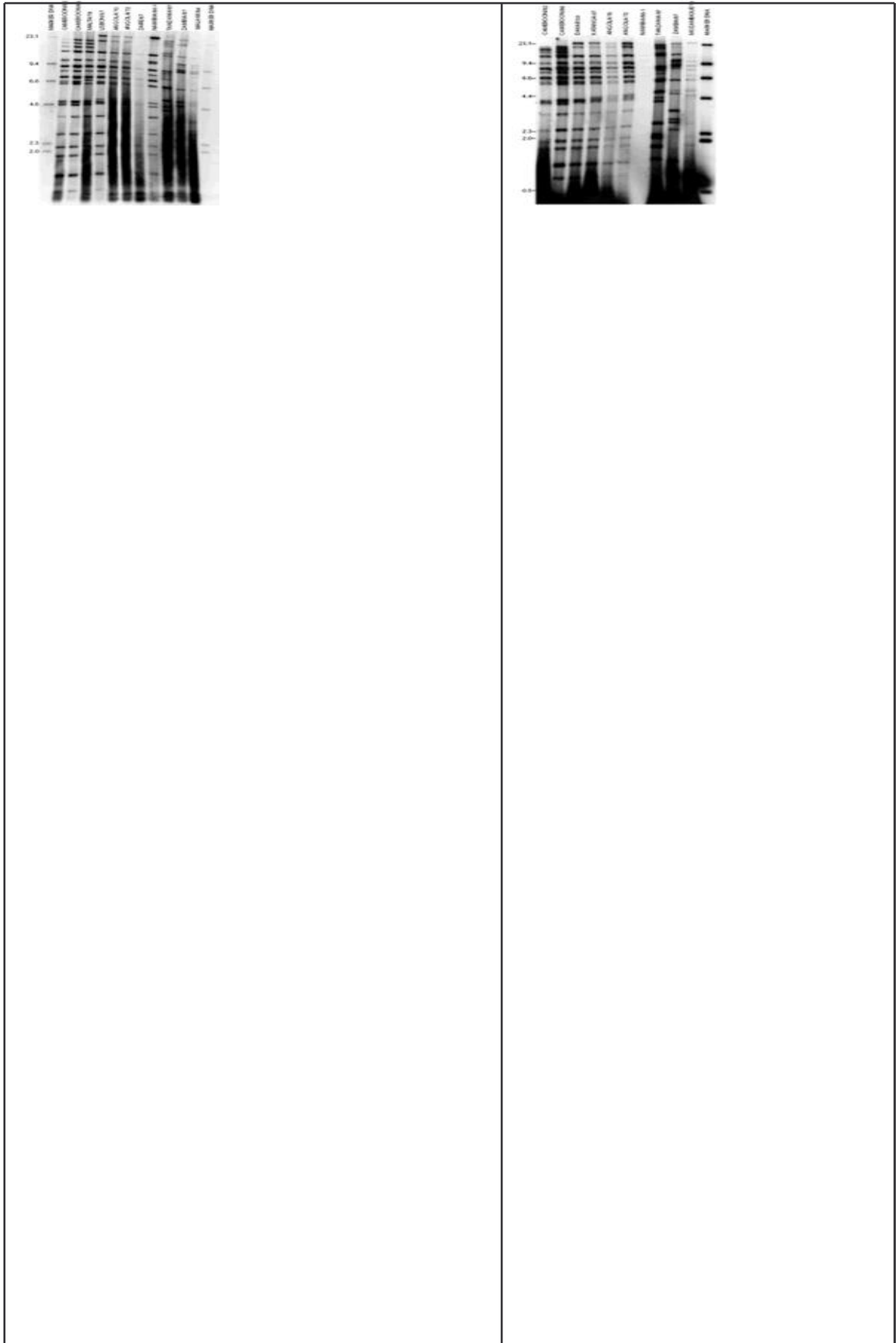


Figure 5: Restriction enzyme analysis of genomes of African swine fever virus isolates from Europe, Cameroon and other African countries with the restriction enzyme BamHI. The figure shows positions and sizes of the molecular weight markers in Kbp.

Figure 6: Restriction enzyme analysis of genomes of African swine fever virus isolates from Cameroon and other African countries with the enzyme BamHI. Molecular weight markers are indicated.

Comparison of BamHI restriction enzyme site maps of genomes of Cameroon and African isolates of ASFV

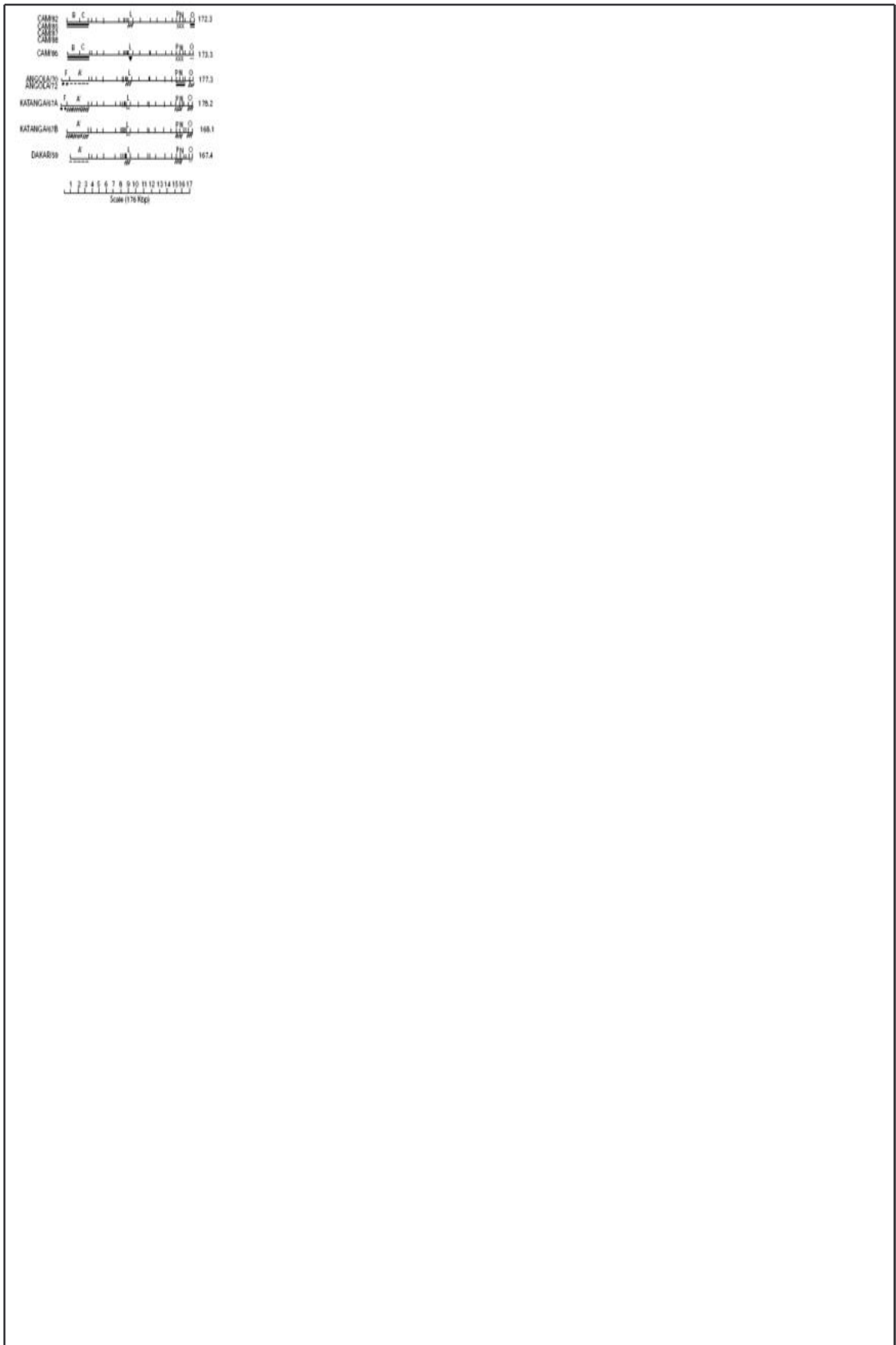


Figure 7: BamHI restriction enzyme site maps of virus genomes of Cameroon, Angola, Katanga/67 and Dakar/59 isolates of the African swine fever virus. The variable regions in each genome are indicated.

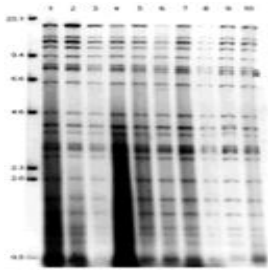


Table II: Sizes of BamHI-L restriction enzyme fragments in genomes of isolates of African swine fever virus from Cameroon and Europe (in Kbp)

Belgum95	6.4	Sardinia78	6.5	Malta78	6.6
CAN82	6.4	Montjo84	6.5	Sardinia82	6.6
CAN85	6.4	CAN86	6.5	Italy83	6.6
CAN87	6.4				
CAN88	6.4				

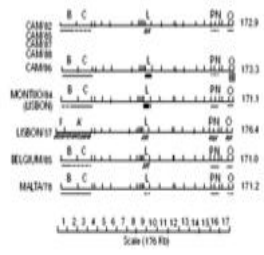


Figure 3: Restriction enzyme analysis of genomes of Cameroon and European isolates of the African swine fever virus with the restriction enzyme XbaI. Lanes 1-10 consist of ASFV isolates mentioned in the same order as in figure 1. Sizes of molecular weight markers in Kbp are indicated.

Figure 4: Comparison of BamHI restriction enzyme site maps of genomes of Cameroon and European isolates of African swine fever virus. Variable regions in the different genomes are indicated. Restriction site maps of the genomes of virus isolates from Europe taken from Wilkinson et al. (unpublished results).

Table III: Distribution of isolates of African swine fever virus from Cameroon and Europe into groups based on the sizes of BamHI-L restriction enzyme fragments

Group 1	Group 2	Group 3
Belgum/85	Montijo/84	Mota/78
CAM/82	Sardinia/78	Sardinia/82
CAM/85		Italy/83
CAM/87	Group 2a	
CAM/88	CAM/86	

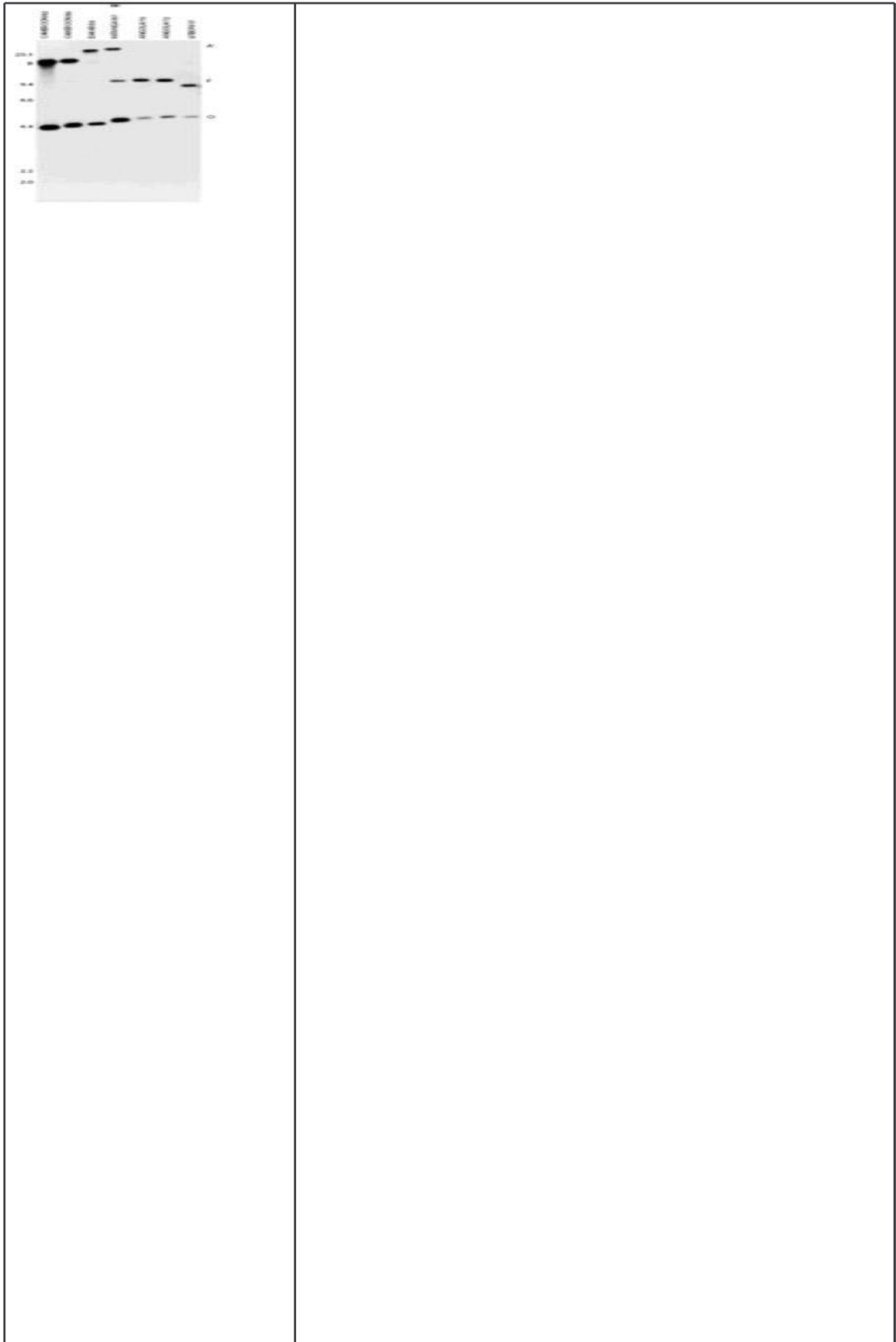


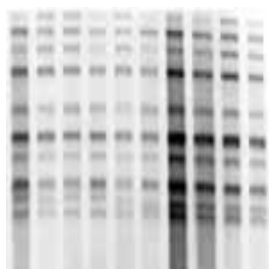
Figure 8: Hybridization of the plasmid DNA clone RK? with BamHI digests of CAM/82, CAM/86, Dakar/59, Katanga/67, Angola/72 and Lisbon/57 isolates of the African swine fever virus. Molecular weight markers in Kbp are indicated.

Discussion

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