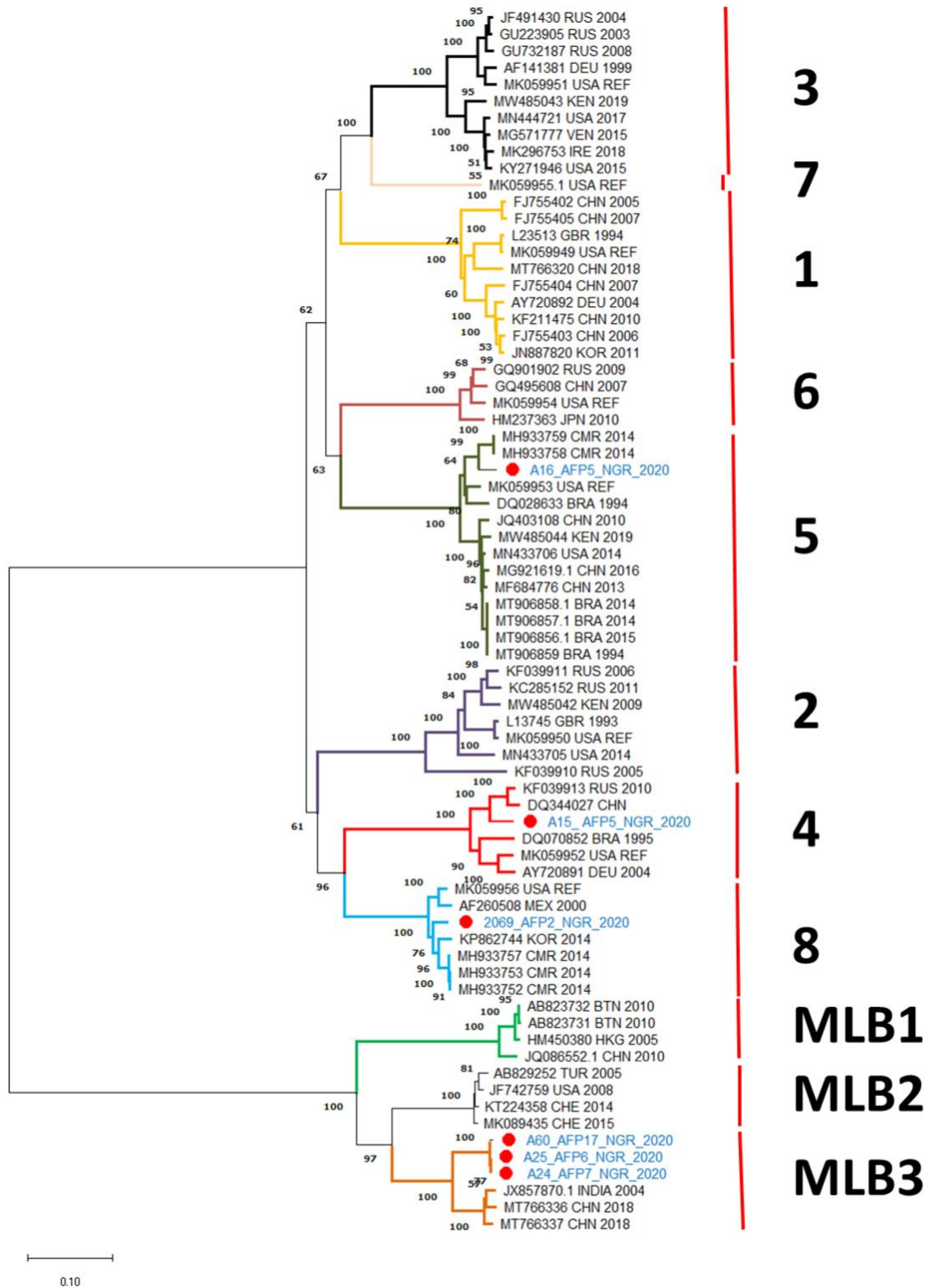
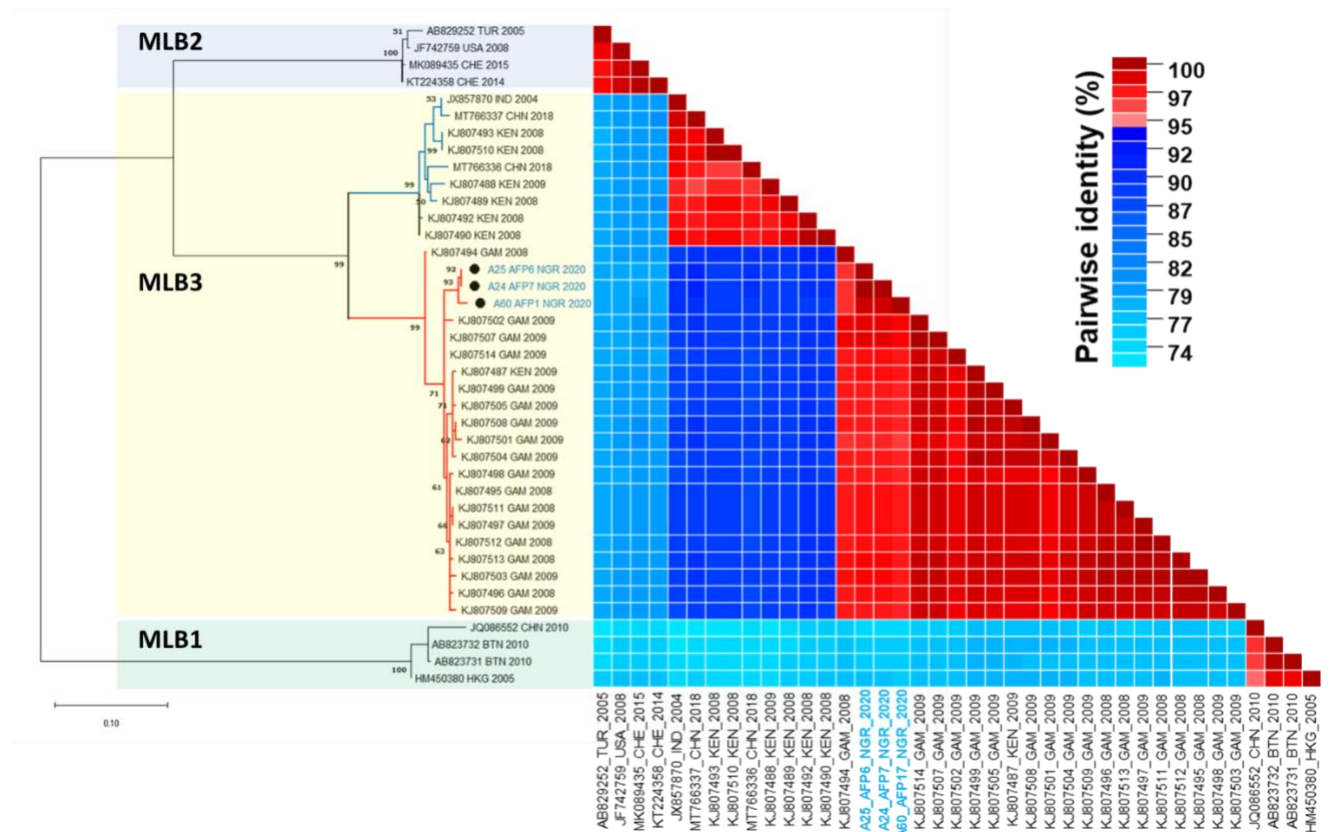


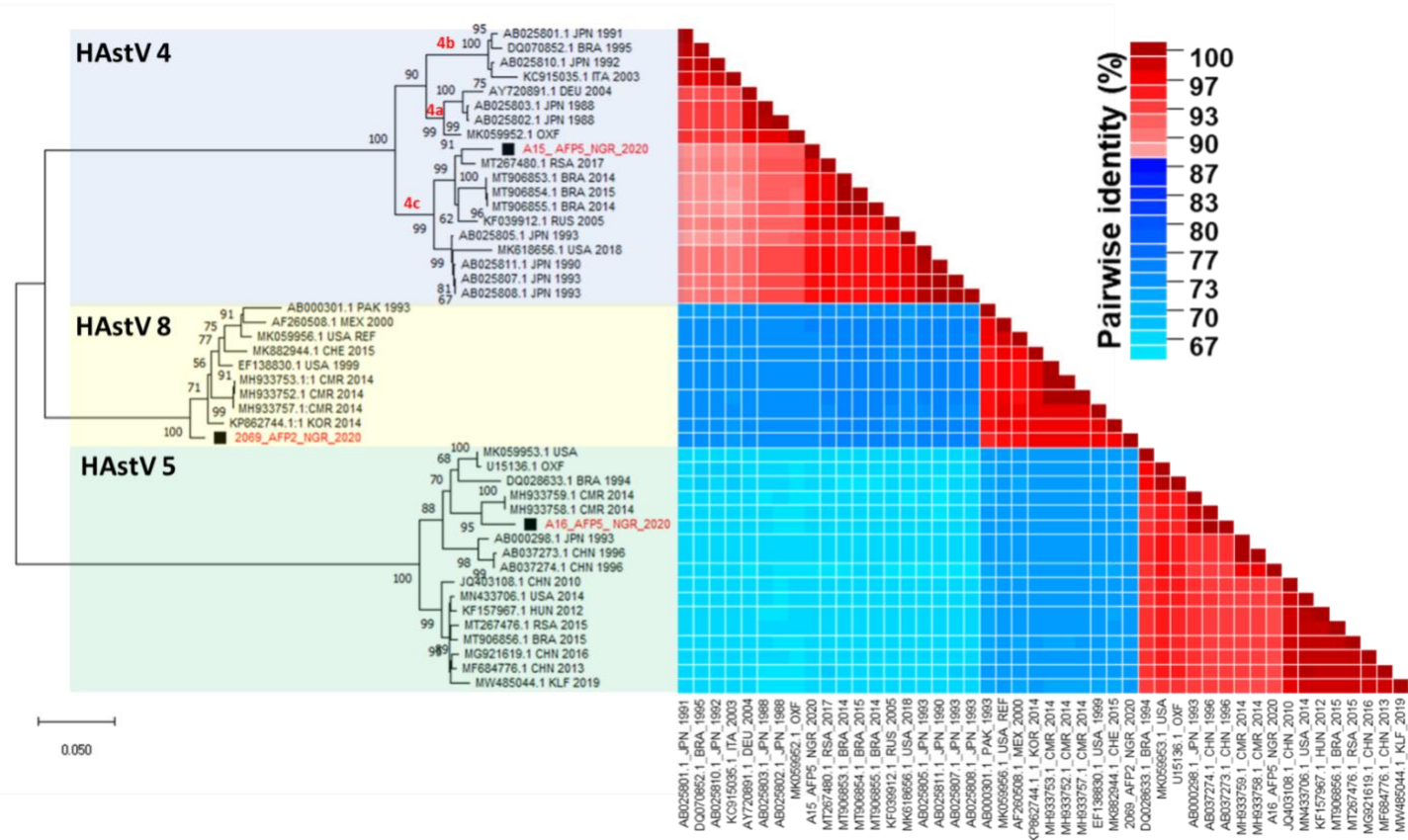
**Figure 1** : Map of Nigeria showing the six geopolitical zones and indicating the states (checkedered) from where samples analyzed in this study were collected.



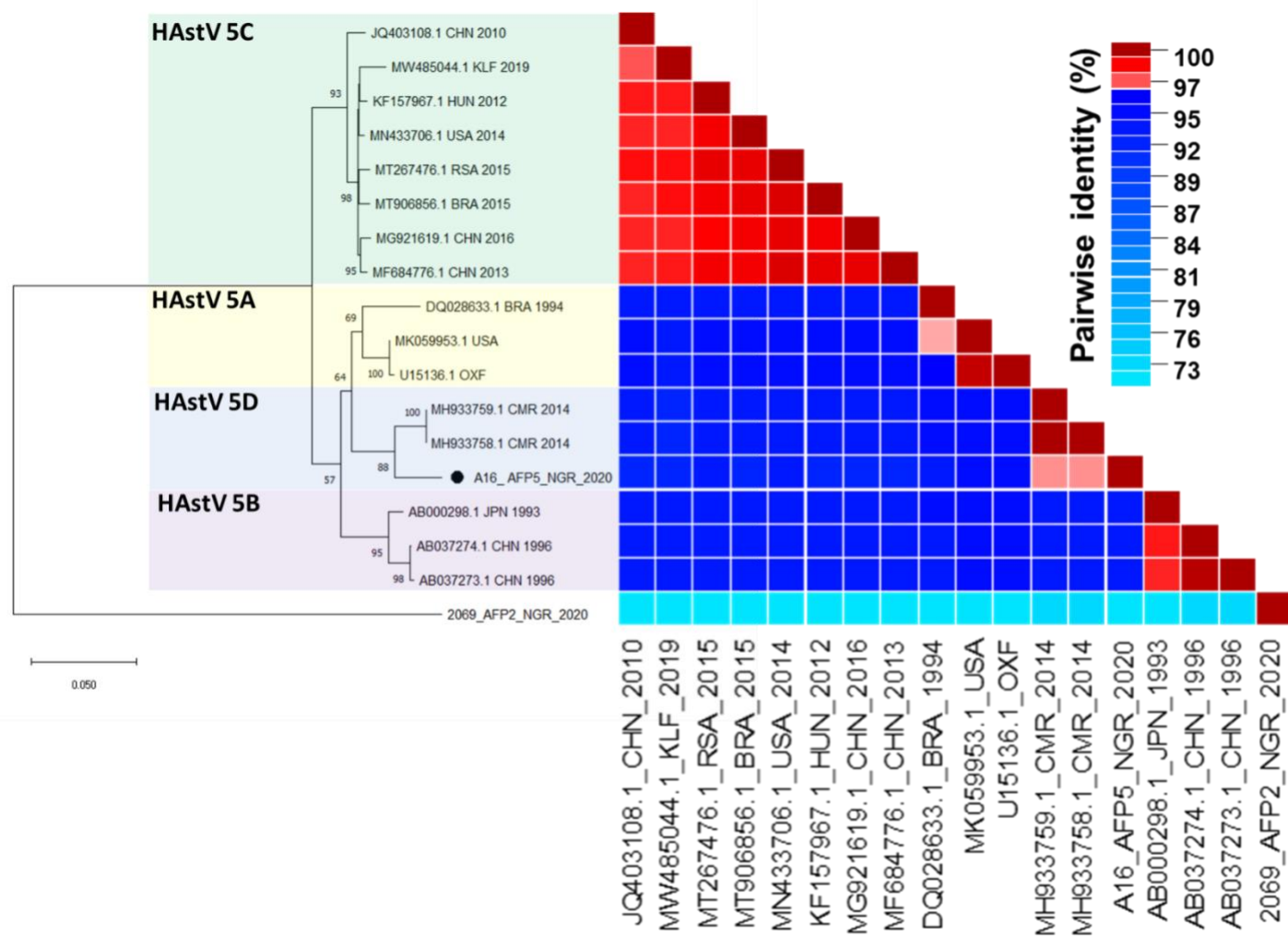
**Figure 2:** Phylogenetic tree of ORF2. HAstV contigs detected in this study are indicated with red circles and blue taxa labels. Bootstrap supports are shown if >50%. Bootstrap supports are shown if >50%.



**Figure 3:** Partial ORF1b phylogeny and pairwise identity analysis of MLB-3 contigs detected in this study alongside others from sub-Saharan Africa. MLB-3 contigs detected in this study are indicated with blue IDs. The right side of the image shows pairwise identity as indicated.

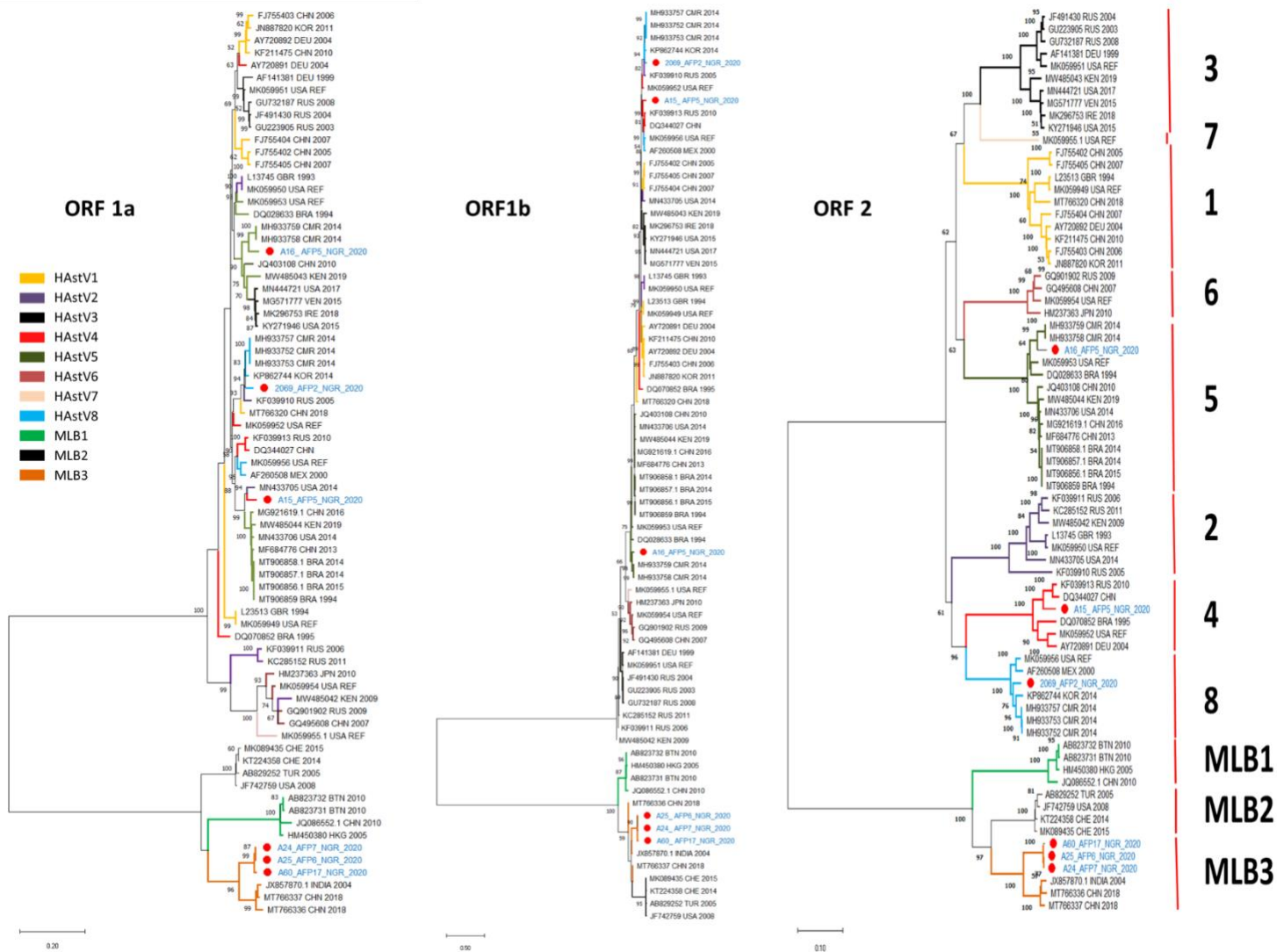


**Figure 4:** Sub-lineage classification of the three classical HAsV types detected in this study. HAsV contigs detected in this study are indicated with black squares.



**Figure 5:** Sub-lineage classification of HAstV-5 showing evidence a possible new sub- lineage. HAstV-5 contigs detected in this study are indicated with black circle.





**Figure 6:** Phylogenetic trees of the three major ORFs in AstV genomes. The sequences described in this study are highlighted in red circles. Classification is based on ORF2 and is color-coded. Trees are arranged in accordance with the organization of the genome