



## AFRICAN ANCESTRY

### Understanding Your PatriClan™ Test Results

#### **What is the Y chromosome?**

African Ancestry studies the Y chromosome in order to determine paternal ancestry. The Y chromosome is inherited paternally. Each male has the same Y chromosome as his father, and his grandfather, and his great-grandfather, etc. Therefore, the Y chromosome provides a historical record that contains information about ancestry.

#### **How do we read the Y chromosome?**

The Y chromosome has been broken down into “markers”. Markers are standard locations or addresses on the Y chromosome that allow scientists a common language when studying the DNA. Each marker is measured by its allele size. The allele size represents the number of times that a sequence pattern is repeated. For example, at marker DYS388, there is the sequence CATTG. If the allele size for marker DYS388 is 10, that means that the sequence CATTG repeats 10 times. It looks like this:

CATTG CATTG CATTG CATTG CATTG CATTG CATTG CATTG CATTG CATTG

#### **How does the allele size affect the analysis?**

Dr. Kittles reads the allele sizes for the eight markers we analyze. He compares the allele sizes to the sequences in our African Lineage Database™. When he finds a sequence that has the same allele sizes for each marker as your sequence, he finds a match. That match indicates the present-day country, and possibly ethnic group, with which you share paternal ancestry. If he doesn't find a match in the ALD, then Dr. Kittles accesses a European database and does the same analysis.

#### **What is the YAP?**

YAP stands for y alu polymorphism. Your Y chromosome either has a YAP or not. The presence of the YAP is indicated by a “+” on your printout. If you do not have a YAP, there is a “-” on your printout. Most males of African paternal descent have the YAP. Males of European descent do not. Therefore, the presence of the YAP helps Dr. Kittles with his analysis of your ancestry.



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**Y Chromosome polymorphisms**

MARKER	DYS388	DYS389I	DYS389II	DYS390	DYS391	DYS392	DYS393	DYS394	YAP
ALLELE SIZE	12	12	28	22	10	14	13	13	-

*Sequence Similarity Measure: 100%*

*This means that your sequence is 100% the same as sequences from people living in Spain.*