



As the tree above shows, you belong to Y-group I1a which is a part of the super-Y-group IJ.

All members of Y-group I1a can trace their Y-chromosomes back to a single man who is thought to have lived about 15 to 20 thousand years ago, probably in Europe.

This man belonged to a group of hunter-gatherers that may have sought refuge during the last Ice Age in the region now known as the Balkans. Later the descendants of this group spread northward, taking part in the recolonization of Northern Europe following the retreat of the glaciers.

Today, members of Y-group I1a are found at the highest frequency in Europe, where about 20 percent of all males belong to this Y-group. Members of Y-group I1a are also found in Northern parts of Asia, but at a considerably lower frequency. Within Europe, the highest frequency of Y-group I1a members is in Scandinavia, where it reaches about 35 percent. As a result, Y-group I1a is sometimes used as a marker for the genetic impact of Vikings on other populations. The presence of Y-group I1a members among the Inuit of Greenland and Maori of New Zealand is the result of more recent contact between these populations and Europeans.

Notable members of Y-group I1a:

1. Alexander Hamilton (1757 - 1804)

Y chromosome and paternal ancestry

The Y chromosome DNA is inherited only from father to son. Ultimately, all men can trace their Y chromosome to a single male ancestor, named "Y Chromosome Adam", who lived in Africa some 90 thousand years ago. The image above represents the genealogical tree that links all men to Y Chromosome Adam, when we trace ancestry only through the male line. The full genealogical tree can be broken down into subgroups of especially closely related Y chromosomes, called Y-groups. These Y-groups are like extended families within the full genealogical tree. People with Y chromosome from the same Y-group have a common ancestor in the male line that is much more recent than Y Chromosome Adam. Each Y-group therefore represents a particular male ancestor, who lived long ago and links the members of that Y-group to Y Chromosome Adam.

Men's cells contain one X chromosome and one Y chromosome. The Y chromosome is very small compared to the X chromosome, and contains relatively few genes. Because the Y chromosome is only carried by males, it is only passed down from fathers to sons. Unlike autosomal DNA, in which only small pieces of DNA sequence can be traced back to ancient ancestors, the Y chromosome is inherited from father to son in one piece.

If no mutations within the Y chromosome had ever occurred as it passed from father to son, then all human males today would carry identical Y chromosomes. In reality, the gradual accumulation of single mutations in the Y chromosome throughout human history makes the Y chromosome a very useful tool to trace the ancestry of men through a chain of fathers. In many cultures this is the same genealogical route through which surnames are inherited. The further you go

back to more distant ancestors in your male line, the more differences there will be between your Y chromosome and your ancestors' Y chromosomes.

Due to its peculiar mode of inheritance through the father, the Y chromosome can be used to determine the genealogical relationship between two or more males living today. If two men share a very recent common ancestor in their male lines, they will tend to have either identical or very similar Y chromosomes. In contrast, two men whose most recent common ancestor in their male lines lived tens of thousands of years ago will tend to have very different Y chromosomes.

Basically, the more differences between two men's Y chromosomes means that more time has passed since their male lines branched off from a common ancestor.

Tracing ancestry in the male line with the y chromosome

For convenience, geneticists have classified the different Y chromosomes found in modern humans into groups (called Y-groups) that can be traced back to ancient common ancestors in the male line. We use a system of 22 Y-groups, indicated by letters and numbers shown at the bottom of the branched diagram above. The diagram shows how each Y-group "branch" can be traced back to common ancestors, and eventually a single common ancestor, as indicated by the boxed letters. Using a well-established method, we are able to compare your Y chromosome from the deCODEme Genetic Scan to these Y-groups to estimate your Y chromosome ancestral lineage.

