

# Mitochondrial Ancestry

## Report

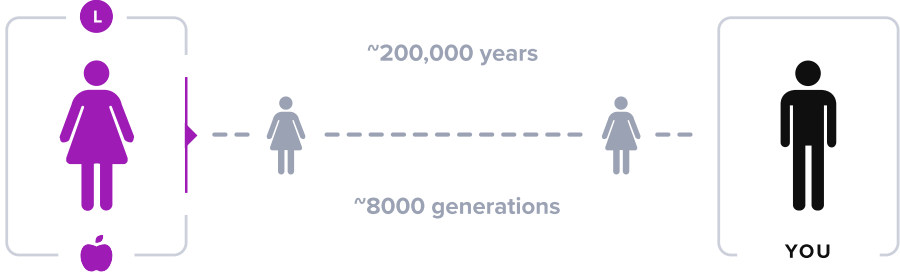
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**Sample Client**

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# Your Mitochondrial Ancestry



As our ancestors explored beyond eastern Africa, they formed different groups that traveled worldwide over tens of thousands of years. Some of these journeys can be tracked through haplogroups, the groups of people who share similar family DNA and can be traced back to a shared ancestor.

Your maternal haplogroup tells the story of the women in your mom's family. We're focusing on mitochondrial DNA, which comes only from your female line, revealing the adventure your mom's ancestors took to bring you to where you are now.



## 6000 - 9200 generations ago

150,000 - 230,000 years ago

Origin: East Africa

**Haplogroup L is at the root of the human mtDNA tree. All humans alive today can trace their ancestry back to a woman living in Eastern Africa ~150,000 - 230,000 years ago. She has been dubbed "Mitochondrial Eve".**

Despite being one of many women alive at that time, only the mitochondrial lineage of "Mitochondrial Eve" survives to this day.

Two major lineages branch off from "Mitochondrial Eve", lineage L0 and L1-6 (L1'2'3'4'5'6).

### During that period:

Earth is going through several Ice Ages. The Earth cools, then warms, then cools again. Cool periods bring drought and ice, while warm periods bring rising sea levels. These extreme weather patterns last for centuries on end. Multiple species of humans are roaming the Earth. Notably, Neanderthals are well-established in Europe and Asia. Meanwhile, in Africa, modern humans (Homo sapiens) are on the rise and expanding. Around this time, modern humans likely go on the first of multiple dispersals out of Africa. In Greece modern human remains were found dating back to 210,000 years ago.





L3

## 2400 - 2800 generations ago

60,000 - 70,000 years ago

Origin: East Africa

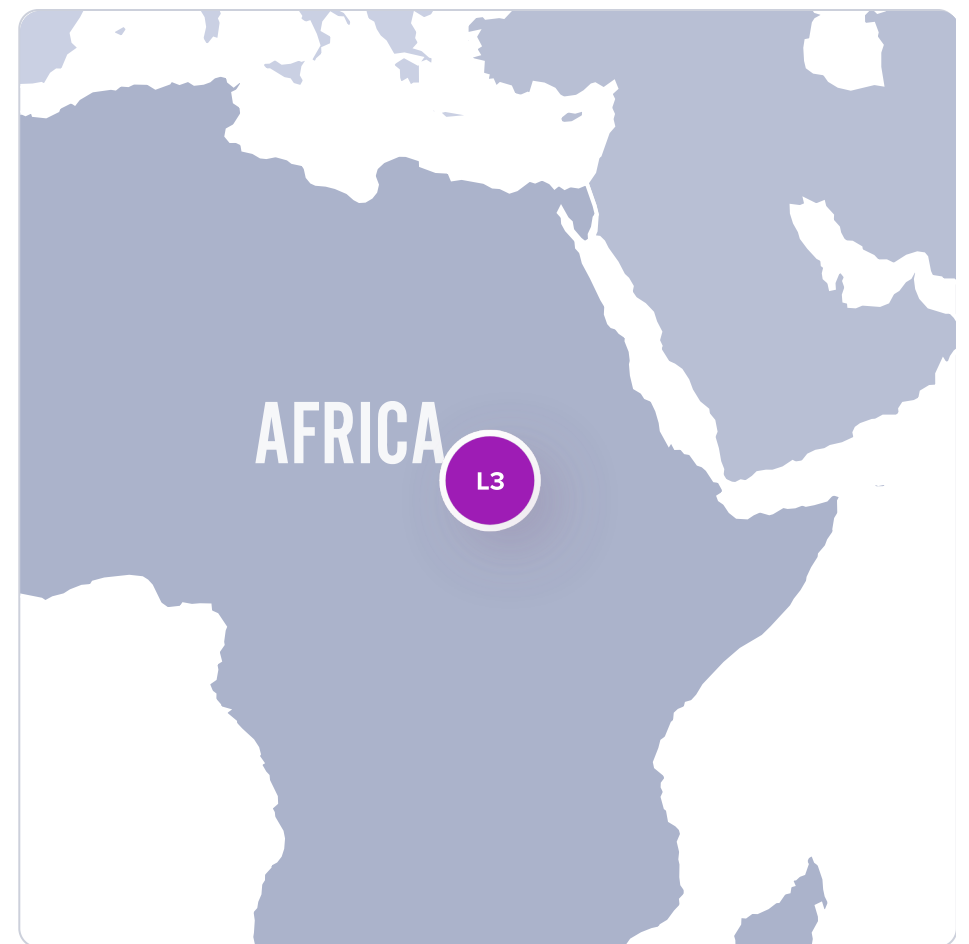
The first woman carrying this haplogroup likely lived in East Africa between 60,000 and 70,000 years ago. Some of her descendants stayed in Africa and later spread across the continent. Others would migrate northward, likely driven by climate change. They would eventually move out of Africa and into the Middle East.

Today, the L3 haplogroup is common in Northeast and East Africa and the Arabian Peninsula. L3 is also found in many African Americans.

On the journey out of Africa, the L3 lineage split into two major groups: M and N, which would go on to spread across the rest of the world.

### During that period:

It's the time of the great human migration. Modern humans are moving out of Africa and this time they will be successful. Eventually their descendants will give rise to modern human populations still found around the world today.



N

## 2000 - 2600 generations ago

50,000 - 65,000 years ago

Origin: East Africa or Middle East

The N lineage is one of the two founding lineages that expanded out of Africa. The first woman carrying the N haplogroup likely lived in either East Africa or the Middle East around 50,000 - 65,000 years ago. Her descendants would eventually spread across Asia, Europe, India, and the Americas. Some would also migrate back to Africa.

Almost all Europeans, Western Asians, and Polynesians are descended from this lineage.

People with this lineage likely coexisted and mixed with Neanderthals. This would account for the Neanderthal DNA found in people living out of Africa.

### During that period:

The great human migration is still ongoing. Modern humans encounter Neanderthals and mix with them.  
The first modern humans cross into Australia from southeast Asia.  
Another species of humans, Denisovans, make the first sewing needle.



R

## 2000 - 2600 generations ago

50,000 - 65,000 years ago

Origin: Southwest or South Asia

The first woman with the R haplogroup likely lived somewhere in Southwest or South Asia around 50,000 - 65,000 years ago. Her descendants would move around to explore neighboring regions. Some would cross the Caucasus mountains into Europe. Others would move into Central Asia and China, or across Indonesia to Australia. Some would eventually migrate back into North Africa.

Today, the basal R\* lineage is found at low percentages in Northeast Africa and the Middle East.

Descendants of the R lineage account for 75-95 % of Europeans today.

### During that period:

The great human migration is still ongoing. Modern humans encounter Neanderthals and mix with them.

The first modern humans cross into Australia from southeast Asia.

Another species of humans, Denisovans, make the first sewing needle.



U

## ~1720 - 2000 generations ago

43,000 - 50,000 years ago

Origin: West Asia

The first woman carrying the U haplogroup likely lived somewhere in West Asia about 43,000 - 50,000 years ago. Today, her descendants are found in Europe, North Africa and West, Central and South Asia.

Haplogroup U is considered to be the oldest haplogroup in Europe and is found in ~11% of Europeans today. It was likely the dominant group of hunter-gatherers in Europe, predating the spread of agriculture.

### During that period:

In Europe and Asia, Neanderthals will discover medication (pain-killing salicylic acid in poplar leaves and antibiotic producing mold) but then will soon go extinct.

Meanwhile, modern humans become established in Europe.

Oldest known story-telling art is found in modern-day Indonesia.



K

YOUR HAPLOTYPE

~880 - 1200 generations ago

22,000 - 31,000 years ago

Origin: West Asia

**Your first maternal ancestor carrying the K haplogroup likely lived in West Asia 22,000 - 31,000 years ago. Her descendants would eventually spread across Europe and may have participated in the spread of agriculture.**

Today, this lineage is found in about 6% of Europeans and West Asians. It is common in France, Great Britain, Belgium, Norway, Austria, Bulgaria, and Georgia. At a lower frequency, it is also found in North and East Africa and in South and Central Asia.

Around 32% of the Askenazi Jewish and around 17% of the Kurdish people belong to this lineage.

Haplogroup K was found in the remains of early farmers in Central Europe, dated to around 7000 years ago. The ancient Egyptian king Tutankhamun belonged to this lineage.

**During that period:**

It is the peak of the last ice age.

Humans start domesticating dogs.

The oldest known pottery is found at this time.

Humans invent ovens, harpoons and saws. They start weaving fiber, which ushers in the use of woven fabric, baskets and textile clothing.

As the sea levels drop, humans cross the land bridge between Siberia and Alaska, on their way to America.

