

Ancestry Composition

Scientific Details

How we calculate your ancestral breakdown

To determine your ancestral breakdown, we use an algorithm that individually looks at short pieces of DNA across your genome. We compare each piece to DNA sequences from 31 ancestral reference populations from around the world, which include over 10,000 individuals with known ancestry. When a piece of your DNA resembles the DNA from a specific reference population with a high degree of certainty, it is assigned to that population. Sometimes a piece of DNA resembles reference DNA from several populations, in which case it is assigned to a "broad" ancestry (e.g. Northwestern European). The results of these assignments are tallied across your genome to determine your results.



Read our [Ancestry Composition Guide](#) or our [white paper](#) for more information about how we assign your DNA to different ancestries.

How we determine your recent ancestor locations

To determine your recent ancestor locations, we look for identical pieces of DNA that you have in common with individuals of known ancestry from over 120 countries and territories in Europe, Africa, the Americas, Asia, and Oceania. If you share identical DNA segments with five or more individuals from a specific location (excluding your close relatives), that location is assigned to you. The strength of that assignment (the "match strength") is determined by how much of your DNA you share with people from that location, adjusting for the number of people that we compared you with. When interpreting your results, keep in mind the following:

- Country borders have changed a lot even within the past 100 years, which can sometimes produce counter-intuitive results.
- If you don't see an expected ancestry location, that doesn't necessarily mean that you don't have ancestors who lived there. It could simply mean that you do not have enough shared DNA with our reference dataset for us to confidently assign that location to you.
- We determine these results in real time, meaning that new locations can arise as our database grows and you should expect to see changes to your results over time.

Have more questions? Check out the [Frequently Asked Questions](#) section.

Your Results for All 151 Tested Populations

Population	Match Strength	Percent
European		47.4% ^
● Iberian		19.7%
Spain	●●●●●	
Portugal	○○○○○	
● Ashkenazi Jewish		0.5%
● Sardinian		0.2%
● Italian		0.0%
Italy	○○○○○	
Malta	○○○○○	
● Balkan		0.0%
Albania	○○○○○	
Bosnia and Herzegovina	○○○○○	
Bulgaria	○○○○○	
Croatia	○○○○○	
Greece	○○○○○	
Macedonia	○○○○○	
Moldova	○○○○○	
Montenegro	○○○○○	
Romania	○○○○○	
Serbia	○○○○○	
● British & Irish		0.0%
Ireland	○○○○○	
United Kingdom	○○○○○	
● Scandinavian		0.0%
Denmark	○○○○○	
Iceland	○○○○○	
Norway	○○○○○	
Sweden	○○○○○	
● Finnish		0.0%
● French & German		0.0%
Austria	○○○○○	
Belgium	○○○○○	
France	○○○○○	
Germany	○○○○○	
Luxembourg	○○○○○	
Netherlands	○○○○○	
Switzerland	○○○○○	
● Eastern European		0.0%
Belarus	○○○○○	
Czech Republic	○○○○○	
Estonia	○○○○○	
Hungary	○○○○○	
Latvia	○○○○○	
Lithuania	○○○○○	
Poland	○○○○○	
Russia	○○○○○	
Slovakia	○○○○○	
Slovenia	○○○○○	
Ukraine	○○○○○	
● Broadly Southern European		21.1%
● Broadly Northwestern European		0.3%
● Broadly European		5.5%
East Asian & Native American		41.8% ^
● Native American		34.4%
Peru	●●●●●	
Mexico	●●●○○	
Argentina	○○○○○	
Aruba	○○○○○	
Belize	○○○○○	
Bolivia	○○○○○	
Brazil	○○○○○	
Chile	○○○○○	
Colombia	○○○○○	
Costa Rica	○○○○○	
Cuba	○○○○○	
Dominican Republic	○○○○○	
Ecuador	○○○○○	
El Salvador	○○○○○	
Guatemala	○○○○○	
Honduras	○○○○○	
Nicaragua	○○○○○	
Panama	○○○○○	
Paraguay	○○○○○	
Puerto Rico	○○○○○	
Uruguay	○○○○○	
Venezuela	○○○○○	
● Manchurian & Mongolian		0.1%
Kazakhstan	○○○○○	
Kyrgyzstan	○○○○○	
Mongolia	○○○○○	
● Southeast Asian		0.1%
Cambodia	○○○○○	
Guam	○○○○○	
Indonesia	○○○○○	
Laos	○○○○○	
Malaysia	○○○○○	
Myanmar	○○○○○	
Philippines	○○○○○	
Singapore	○○○○○	
Thailand	○○○○○	
Vietnam	○○○○○	
● Japanese		0.0%
● Korean		0.0%
North Korea	○○○○○	
South Korea	○○○○○	
● Siberian		0.0%
● Chinese		0.0%
Hong Kong	○○○○○	
Mainland China	○○○○○	
Taiwan	○○○○○	
● Broadly East Asian		0.5%
● Broadly East Asian & Native American		6.8%
Sub-Saharan African		5.2% ^
● West African		4.5%
Cabo Verde	○○○○○	
Cameroon	○○○○○	
Ghana	○○○○○	
Liberia	○○○○○	
Nigeria	○○○○○	
● East African		0.1%
Eritrea	○○○○○	
Ethiopia	○○○○○	
Kenya	○○○○○	
Somalia	○○○○○	
Sudan	○○○○○	
● African Hunter-Gatherer		0.1%
● Broadly Sub-Saharan African		0.6%
Western Asian & North African		1.3% ^
● North African & Arabian		1.0%
Algeria	○○○○○	
Bahrain	○○○○○	
Egypt	○○○○○	
Jordan	○○○○○	
Kuwait	○○○○○	
Libya	○○○○○	
Morocco	○○○○○	
Saudi Arabia	○○○○○	
Tunisia	○○○○○	
United Arab Emirates	○○○○○	
Yemen	○○○○○	
● Western Asian		0.0%
Armenia	○○○○○	
Azerbaijan	○○○○○	
Cyprus	○○○○○	
Georgia	○○○○○	
Iran	○○○○○	
Iraq	○○○○○	
Lebanon	○○○○○	
Syria	○○○○○	
Turkey	○○○○○	
Uzbekistan	○○○○○	
● Broadly Western Asian & North African		0.3%
South Asian		0.0% ^
● Broadly South Asian		0.0%
Afghanistan	○○○○○	
Bangladesh	○○○○○	
India	○○○○○	
Mauritius	○○○○○	
Nepal	○○○○○	
Pakistan	○○○○○	
Sri Lanka	○○○○○	
Melanesian		0.0% ^
● Broadly Melanesian		0.0%
American Samoa	○○○○○	
Fiji	○○○○○	
Samoa	○○○○○	
Tonga	○○○○○	
Unassigned		4.4% ^

There is a wide range of human diversity out there, and sometimes our algorithm can't pinpoint a region of your DNA to a specific population. Bear with us as our data and resources continue to expand. We expect the amount of unassigned ancestry our customers see to decrease.

Download your Ancestry Composition raw data for even more information. Genomic coordinates (NCBI Build 37) for your Ancestry Composition results are available in CSV format.

Select Confidence Level ⓘ

50%

Download Raw Data

Our Reference Datasets

This table shows the number of reference individuals used to define each broad ancestry population. The reference datasets are made up of over 10,000 people, including publicly available data from the [Human Genome Diversity Project](#)¹, [HapMap](#)², and the [1000 Genomes project](#)³, as well as a large number of 23andMe customers who have consented to participate in research.

Population	23andMe Customers	Public Data*	Total Individuals
East Asian and Native American Native American (Colombian, Karitiana, Maya, Pima, Surui), East Asian, Japanese, Korean (South Korean), Siberian, Manchurian (Daur, Hezhen, Mongolian, Oroqen, Tu, Xibo), Chinese (Chinese, Han, Hong Kongese, Taiwanese), Southeast Asian (Burmese, Cambodian, Indonesian, Lao, Malaysian, Filipino, Thai, Vietnamese)	808	560	1368
European Southern European, Italian (Italian, Northern Italian, Tuscan), Balkan (Albanian, Bosnian and Herzegovinian, Bulgarian, Croatian, Greek, Macedonian, Maltese, Montenegrin, Romanian, Serbian), Sardinian, Iberian (France Basque, Portuguese, Spanish), Northwestern European, British and Irish (Irish, United Kingdom), French and German (Austrian, French, German, Belgian, Dutch, Swiss), Scandinavian (Danish, Norwegian, Swedish), Finnish, Ashkenazi, Eastern European (Belarusians, Czechs, Hungarians, Polish, Russian, Slovak, Slovene, Ukrainian)	6421	421	6842
Melanesian Broadly Melanesian (Non-Austronesian Melanesian, Palauan, Tongan)	3	36	39
South Asian Broadly South Asian (Afghan, Balochi, Bangladeshi, Brahui, Burusho, Hazara, Indian, Kalash, Makrani, Nepalese, Pakistani, Pathan, Sindhi, Sri Lankan, Uyghur)	207	615	822
Sub-Saharan African West African (Bantu, Cameroonian, Ghanian, Ivorian, Liberian, Luhya, Mende, Nigerian, Sierra Leonean, Yoruba), East African (Eritrean, Ethiopian, Maasai, Somali), African Hunter-Gatherer (Biaka Pygmies, Mbuti Pygmies, San)	228	393	621
West Asian and North African West Asian (Armenian, Azerbaijani, Cypriot, Georgian, Druze, Iranian, Iraqi, Lebanese, Turkish, Syrian), North African & Arabian (Algerian, Bahrani, Bedouin, Egyptian, Jordanian, Kuwaiti, Moroccan, Mozabite, Palestinian, Saudi Arabian, Tunisian, Emirati, Yemeni)	550	176	726
* Public Reference Set includes HGDP, 1000 Genomes, HapMap3			

Change Log

Your report may occasionally be updated based on new information. This Change Log describes updates and revisions to this report.

Date	Change
March 28, 2018	Your genetic results were first available from 23andMe.
Feb. 16, 2018	The Ancestry Composition report was updated with 120 additional regions.
Nov. 8, 2017	The Ancestry Composition results of customers on the V5 platform were updated to reflect improvements in our algorithm.
Oct. 21, 2015	Ancestry Composition report created.