

The North of Ireland DNA Project



An overview of Y-DNA

It is exciting to see a lot more Y-DNA test results coming through on FamilytreeDNA.

Y-DNA works very differently than autosomal DNA that most people test. Y is one of the two sex chromosomes, handed down from father to son only, so information from this test is solely about the ancestry of a direct patrilineal line. Whilst a female does not inherit Y-DNA, she can still explore this line by asking a suitable relative to test, such as a brother, male cousin or uncle connected through her father's line.

Y-DNA in the North of Ireland DNA Project

The massive task to group all Y testers within the North of Ireland DNA Project has been completed, allowing some to see which subgroup they are in.

It may be that you are in the very large subgroup of unmatched testers. This means that you cannot be matched to anyone else in the North of Ireland DNA Project, so you could encourage other matches to join the Project providing, of course, that they have ancestry from the North of Ireland.

To see which subgroup you belong to, go to the North of Ireland DNA Project once you are logged in to FTDNA, click on DNA results and then on Classic Chart or Colourised Chart. You can search the database using the name of the tester.

Haplogroups

Y-DNA is handed down intact for many generations at a time. However mutations did (and do) occur and it is these that allow Y-DNA testing to define which haplogroup a person belongs to. Mankind can trace its ancestors back to a single group of people living in Africa. From there, members of this group migrated to different areas and unique mutations were developed within each of these separate groups, creating offshoots of the original haplogroup. This continued for many thousands of years. Each new mutation is given a sub-number and, simply put, that is what your haplogroup classification is.

You can see the migration map for your Haplogroup on your Y-DNA results page.

Y-DNA matches

There are various levels at which you can test your Y-DNA and the results you get will reflect which of these levels you tested. For example a Y-37 test will examine 37 markers (or STRs) on the Y chromosome and the Y-111 test will compare a further 74 markers. The most complete test is the Big Y-700, which looks at a minimum of 700 markers.

Each marker is matched against those of everyone else to generate your matches for each level to which both of you have tested. The more markers that are tested, the more refined the matching will be.

Looking at your list of matches, a Genetic Distance of 0 with a match means that the marker you both share is exactly the same, with no known mutations on that marker. A genetic distance of 1 means there is one known mutation on that marker and so on. The more mutations there are on a marker, the further back the common ancestor is likely to have lived.

However at the lower levels of testing, the most recent common ancestor to a match with a genetic distance of 0 could still be many generations back. FTDNA has a Time Prediction calculator to give you probabilities of how far back the common ancestor lived. You can find this by clicking on the TiP icon at the right of the match details.

A matching surname increases the chances of a match being in more recent times but there can be many social and cultural reasons for a match not having the same surname. The use of surnames as we know them today has been in use for a relatively short timeframe, as late as the 1900s in some cultures. Others took surnames of a clan or tribe, so do not actually have paternal connections. There could be an illegitimate birth or someone could have adopted a different surname because of personal circumstances, or just because they wanted to.

Big Y-DNA

The Big Y test examines many more markers as well as SNPs, which are mutations or new branches on the Y-DNA Haplotree. The results from this test will show your unique mutations and provide a block tree which illustrates how your matches fit into this block tree through their unique mutations.

Unlike Y-37 and 111, the Big Y test is not static and your block tree is continually updated as more people test and matching mutations are identified.

Because Big Y tests are more extensive and include SNPs, your Haplogroup will be the most recent available, meaning that any matches are more likely to be more recent too. This also means that you may find a match that was not apparent at a lower level of testing.

Like all DNA tests, matches can only be identified with others who have tested. The increase in Y-DNA testing is helping to improve results for others and we look forward to this trend continuing.

If you would like to take a Y-DNA test, please email DNA@nifhs.org.

More DNA Information: <https://www.nifhs.org/dna/>

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