

Berkhof-Berkhoff. DNA Project

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Project Surnames

Barkhof, Barkhoff, Berghof, Berghoff, Berkhof, Berkhoff, Berkhoven, Birkhof, Birkhoff

Project Background

The researchers connected to the website 'Berkhof-Berkhoff. 1575-1900', have since 2004 at least found and documented 19 different Berkhof(f) family branches. For most known branches the research goes back to the period 1700-1750, there the papertrail ends. Several of these branches originate from a same area. Others (seem to) lead to a region where (also) a spelling variant like Barkhof(f), Birkhof(f), Berghof(f), Berkhoven, occurred / occurs *. The lack of surviving historical documentation, movements from one place to another and the influence of regional dialects, makes it difficult, if not impossible to determine family relationships.

These difficulties of classic genealogical ancestor research can now be met in a modern way: with a 'simple' (genealogical) DNA-test for today's descendants. By comparing test results it is possible (for us) to determine if testees share in a certain last period of time a common ancestor, or not. For instance in the last fifteen hundred years (fifty generations) with a 12-marker Y-DNA test, up to only a few generations back for an extensive 67-marker Y-DNA test **.

Yes, it is that simple ... So, every (male) Berkhof(f), Barkhof(f), Birkhof(f), Berghof(f), Berkhoven surname bearer can and is welcome to participate in this fascinating modern genealogical research programm. But, because the tested Y-chromosome is only passed down from father to son, we advise interested female surname bearers to find a close male relative to do the test, like a father, brother, uncle or cousin.

For questions please contact the Group Administrator. More about test prices and for the DNA Test Kit Instruction can be read below.

* See for today's surname distribution in:

The Netherlands: Familienaam.nl

Germany: Verwandt.de

** See the article: Familytreedna.com - 'How Many to Test? 12, 37, 67 Markers?'

Berkhof-Berkhoff. DNA Project

Project Goals

With this DNA Project the researchers connected to the website 'Berkhof-Berkhoff. 1575-1900' hope to:

1. find family relationships between known branches where the paper trail stops;
2. discover (part of) family branches that are so far 'unknown';
3. locate regions / places of origin of different, not-related branches;
4. provide surname bearers of information about their family branch origin / history;
5. stimulate research to the surnames in the project and to the surnames Berkhof and Berkhoff in particular.

To participate meaningfully, testees will need to share their direct male line ancestry back to the earliest known ancestor. This in the form of a pedigree (excluding living persons).* These pedigrees will be sent (anonymously) to the participants of the project and to the researchers connected to the website 'Berkhof-Berkhoff. 1575-1900'. If possible, individual test results will with kitnumber and surname of the testee, be grouped by place of origin of (documented) family branches, as they can be found at the above mentioned website. Otherwise they will be placed (together) in the group 'Other Families'.

* a GEDCOM-file can be uploaded to your FamilyTreeDNA account.

Berkhof-Berkhoff. DNA Project

Results

To understand the results at the Y-DNA Results page, first a short explanation what a genealogical DNA-test is about and how the results must be read.

Genealogical DNA-testing in short

For ancestor research only two parts of the long and complicated DNA-string are of interest: the 'Y-chromosome' (one of the twenty-two chromosomes in total) that can be found in the cell nucleus and the 'mitochondria', important non-nucleus cell parts. The Y-chromosome is passed down directly from father to son (but not from father to daughter). The mitochondria are passed down directly from mother to daughter and from mother to son (but not from father to son).

Both (the Y-chromosome and the mitochondria) are passed down, or maybe better, are copied from one generation to another. During this copy-process once in a while an error is made. A copy-error is definite and is (also) passed down to a next generation. These copy-errors now can be seen as 'genetic markers' and are the object of study in genealogical DNA-testing ('Y-DNA' and 'mtDNA'). Because surnames are (normally) passed down from father to son (like the Y-chromosome) only Y-DNA testing contributes to a surname study.

The genetic markers that are passed down (and inherited) through generations, form an intriguing story that can be traced back in time, even to the origin of mankind. The Genographic Project hopes to unravel this 'history of human kind' and to draw a 'human family tree'. The DNA tests on which this 'deep-ancestry' project is based, are the 12 marker Y-DNA test and the mtDNA test of FamilyTreeDNA. Participants of the Berkhof-Berkhoff. DNA Project can (for \$ 15,-) upload their Y-DNA results to the Genographic Project if they want to. Their website is worth visiting. The tab 'Genetics Overview' gives a clear explanation of DNA-testing, including graphics.

Reading Y-DNA results

The Y-chromosome is (of course) a complicated thing with possibilities for a lot of copy-errors. Each such possibility functions (as we have seen) as a 'genetic marker'. These markers are (scientifically) numbered and can be found horizontally under 'DYS #'. For example: 'DYS 393'. Copy-errors occur in degrees. You have singular errors, errors on errors, errors on errors on errors etc. So, errors have a 'allele' (repeating) value. For example '13'. In scientific words, the genetic marker now is called 'DYS 393 Allele 13'. And to make it easy for us, FamilyTreeDNA calls the markers in their tests (also) 'Loci #', so 'Loci 1 = DYS 393 Allele 13', or 'Loci 1 = 13'. 'Loci 2 = ...' etc.

In order to find the 'Most Recent Common Ancestor' (MRCA) the value of the tested markers need to match or nearly match, depending of how many markers are tested. For example the results of participant 1 are: DYS 393 = 13; DYS 390 = 24 and DYS 19 = 14. The results of participant 2 are also: DYS 393 = 13; DYS 390 = 24 and DYS 19 = 14. They match '3 of 3', which means they share their MRCA within a certain recent period of time.

The results of participant 3 are: DYS 393 = 13; DYS 390 = 24 and DYS 19 = 15. Comparing these results with the results of participant 1 (and 2) shows a difference in value (a 'genetic distance') of 1. They match 2 of 3. Participant 3 is related to participant 1 (and 2), but most likely further back in time than 1 and 2 are. The results of participant 4 are: DYS 393 = 13; DYS 390 = 26 and DYS 19 = 16. Compared with the results of participant 1 (and 2), the genetic distance is 4! Mind that for genetic distance not the amount of differing markers count (2), but the difference in value of the differing markers ($2 \times 2 = 4$). So they match -1 of 3!

For interpreting the results at the Y-DNA Results page you can use best 'Table 1' (and 2) from: Familytreedna.com - 'How Many to Test? 12, 37, 67 Markers?'

Table 1. Probability for Most Recent Common Ancestor (MRCA)

Number of matching markers	50% probability that the MRCA was no longer than this number of generations	90% probability that the MRCA was no longer than this number of generations	95% probability that the MRCA was no longer than this number of generations
10 of 10	16.5	56	72
11 of 12	17	39	47
12 of 12	7	23	29
23 of 25	11	23	27
24 of 25	7	16	20
25 of 25	3	10	13
35 of 37	6	12	14
36 of 37	4	8	10
37 of 37	2 to 3	5	7
65 of 67	6	12	14
66 of 67	4	8	9
67 of 67	2	4	6

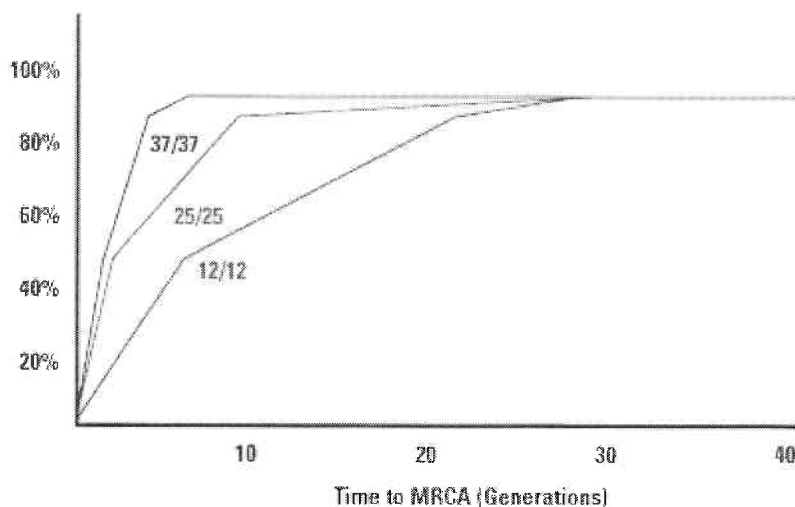


Table 2. Examples of previously tested individuals

Situation	DYS #	Result
	39339019391385a385b426388439389i392389ii	
California-Same Surname	12 22 1410 14 15 11 15 11 14 11 31	12/12 match with Argentina
Argentina Same Surname	12 22 1410 14 15 11 15 11 14 11 31	12/12 match with California
5 Generations in US-Same Surname	12 23 1410 13 17 11 16 11 13 11 30	12/12 Match with E. Europe
Recent Arrival from E. Europe-Same Surname	12 23 1410 13 17 11 16 11 13 11 30	
Houston Same Surname	14 22 1510 13 13 11 12 11 12 12 29	Not a match with Brazil
Brazil Same Surname	13 25 1610 12 14 12 12 11 13 11 29	Not a match with Houston
Nordic Genetic Fingerprint	13 23 1410 14 14 11 14 11 12 11 28	Sample of Nordic Haplotype
Western Atlantic (Modal) Haplotype	13 24 1411 11 14 12 12 12 13 13 29	Sample of W. Atlantic Haplotype
Samaritan	12 23 1410 14 17 12 15 13 13 11 29	Sample of Samaritan Haplotype

Under 'DYS #' you can also find a prediction of a participants 'haplogroup'. Haplogroups can be seen as different branches of the 'human family tree' and are part of 'deep-ancestry research'. The prediction is based on comparing the values of the first twelve markers with verified results in the FamilyTreeDNA database. Participants (and familybranches) with different (predicted) haplogroups belong to different branches of the human family tree and share their MRCA thousands (and thousands) of years ago. For surname research can be concluded that they are not related. The predicted haplogroup can (at additional costs) be verified if you like to.

Useful articles about DNA-testing and reading test results can be found in the 'Sitemap' of the FamilyTreeDNA website.

Berkhof-Berkhoff. DNA Project

Testing your own DNA ?

Several tests are available for determining kinship that only differ in accuracy of the results. The Y-DNA 37 markertest provides for the Berkhof-Berkhoff DNA Project the most useful results. Every test gives a haplogroup prediction.

Y-DNA 12 \$ 99,- (~ EUR 69,-)

Y-DNA 25 \$ 124,- (~ EUR 86,-)

Y-DNA 37 \$ 149,- (~ EUR 104,-)

Y-DNA 67 \$ 239,- (~ EUR 167,-)

A Deep Clade test for determining the exact haplogroup is only available as 'upgrade' of a markertest. The costs of it depends from the (predicted) haplogroup. The Deep Clade R test costs \$79,- (~ EUR 55,-).

See for more the article: Familytreedna.com - 'How Many to Test? 12, 37, 67 Markers?'. Tests can be ordered using the link: 'REQUEST TO JOIN THIS GROUP'.

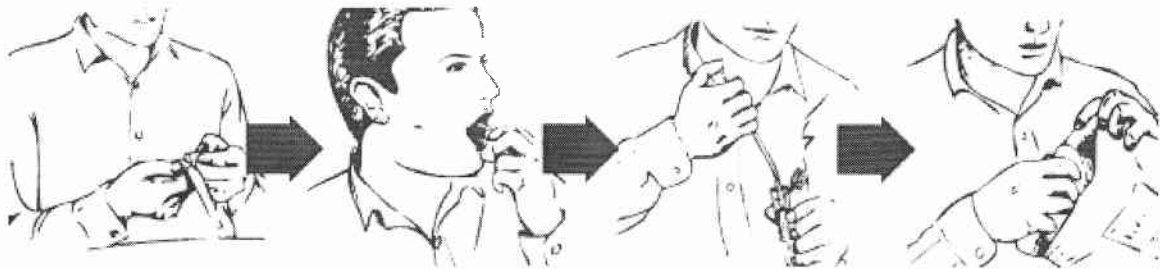
For questions (and joining) please contact the Group Administrator.

NOTE: THESE TESTS ARE GENEALOGICAL DNA TESTS ONLY AND DO NOT GIVE INFORMATION ABOUT HEREDITARY DISEASES !!

Berkhof-Berkhoff. DNA Project

FamilyTreeDNA Test Kit Instruction

**** Please Note--**Read this entire sheet before you begin your specimen collection. Scraping should be before eating or drinking, or at least an hour after eating and drinking. Avoid warm or hot fluids before scraping.



1. We have supplied 3 swab kits and collection tubes to insure accuracy.
2. The number on your tube should correspond to the number on your release Form and the plastic bag.
3. With clean hands carefully open the plastic wrapper without damaging the scraper. Keep the plastic bag that has your kit number to put the tubes back after the collection.
4. Using one cheek scraper, scrape forcefully inside the cheek many times (about 60 seconds). A great scrape gives us a great sample! A weak scrape will yield less DNA and may cause several weeks delay.
5. Remove the small specimen tube marked with your kit number. Unscrew the top and gently push on the plunger at the top of the applicator stick, ejecting the scraper into the tube, just under the soapy solution. (Please do not jam the scraper to the bottom of the tube...it is difficult to retrieve)!
6. Remove the plastic applicator handle, leaving the scraper tip in the tube. Twist the cap onto the tube securely. The tube must be shut tightly to insure the quality of your sample. The tube with the scraper tip inside should be left at room temperature. However, it will not be harmed by winter or summer temperatures when sent by regular mail.
7. Wait 3-4 hours and repeat steps 4 to 6 for each of the second and third scrapers and tubes marked with your kit number.
8. Put the tubes inside the plastic bag that has your kit number and seal it. Insert the plastic bag and the release form in the self-addressed envelope provided, and send it back to Family Tree DNA via US Mail (postage within the US is \$1.13). If payment has not yet been made, please make sure to write the Kit AND Invoice numbers on the check. This will ensure that payment is correctly assigned to your order.

Source: Familytreedna.com - 'DNA Test Kit Instructions'

Berkhof-Berkhoff. DNA Project

Release Form (optional)

Kit/Sample# _____

EXAMPLE

I, _____ give permission to Family Tree to make my information available to a genetic match. This will be done according to guidelines set forth in the second section entitled "Legal" on the web page that I have read and understand. If another party's genetic profile is a relevant match to mine, I want to release to them my email address or my mailing address if the email address is not supplied. Unless I sign this Release Form, my personal information will not be shared with anyone who may match my markers in any form, now or in the future. In the event I sign this document, I understand that only my e-mailaddress will be shared with another person who shares my personal family genetic marker, and I hold the company harmless for all consequences of sharing this information with that other individual(s).

We are establishing a database of ethnic origins. If you would like to be in this web accessible database, which will not contain your name, only your most distant ancestors country of origin, (male if Y- or female if mt) please write the country in the space provided.

Signature _____

Ancestor's Country of Origin:

Paternal _____ **Maternal** _____

(Unless you or your ancestors are Native American, the country of Origin is not the U.S.A. Country of origin is the country where your paternal and maternal ancestors came from. If you are not sure, leave blank)

Source: Familytreedna.com - `FTDNA-release-form.pdf`