

How a Genetic Ancestry Kit Works

Step 1

A swab of the inner cheek loosens cells that contain DNA.

Step 2

DNA is extracted from either the mitochondria (to test matrilineage) or the nucleus (to test patrilineage or overall heritage).

Step 3

The DNA is replicated, chopped into small pieces, split into single strands, and marked with a dye.

Step 4

The chopped strands are then placed onto a gene chip that contains tens to hundreds of types of DNA corresponding to selected markers.

Step 5

The strands only stick to spots on the chip that have matching markers.

Step 6

Spots where the strands have stuck will glow, and the pattern of spots can be compared by computer to determine the person's genetic heritage.

