

Bloom Syndrome

Scientific Details

Bloom syndrome is a rare genetic disorder characterized by impaired growth and increased risk of infections and cancer. A person must have two variants in the BLM gene in order to have this condition.

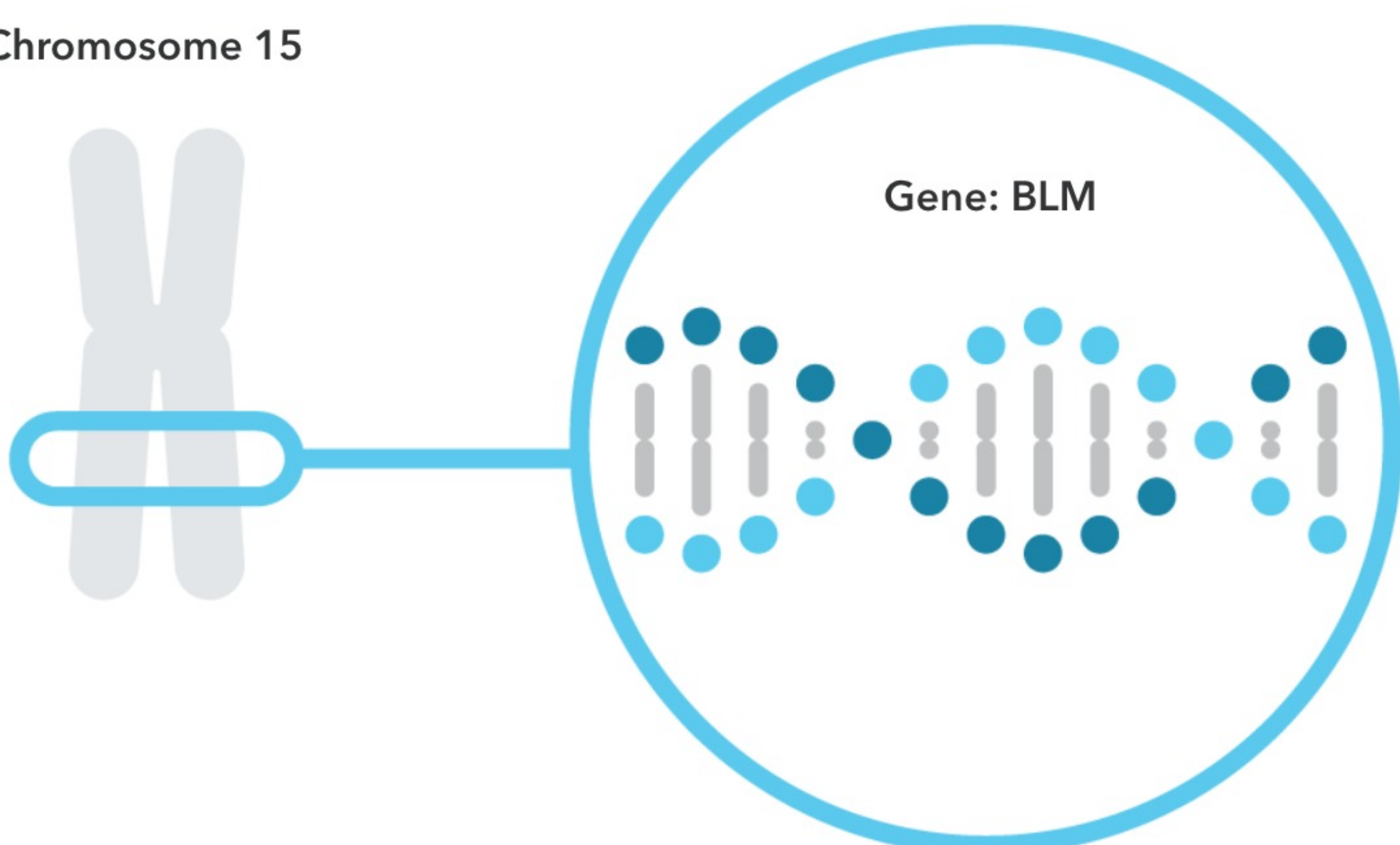
Bloom syndrome is caused by variants in the BLM gene.

BLM

The BLM gene contains instructions for making a protein called Bloom Syndrome Protein, also known as RecQ2. This protein helps protect DNA when it is copied and repaired. Certain variants in BLM disrupt this protective function, which can lead to harmful breaks and rearrangements in DNA.

Read more at [Genetics Home Reference](#)

Chromosome 15



Your result for this test could not be determined.

Variants Detected		View All Tested Markers
Marker Tested	Your Genotype*	Additional Information
BLMAsh Gene: BLM Marker: i4000396	Not determined	Biological explanation Typical vs. variant DNA sequence(s) Percent of 23andMe customers with variant References [1, 2, 3] ClinVar

*This test cannot distinguish which copy you received from which parent. This test also cannot determine whether multiple variants, if detected, were inherited from only one parent or from both parents. This may impact how these variants are passed down.

23andMe always reports genotypes based on the 'positive' strand of the human genome reference sequence (build 37). Other sources sometimes report genotypes using the opposite strand.

Test Interpretation

You have received a **Not Determined** test result. This result can be caused by random test error or other factors that interfere with the test. It can also be caused by having two copies of the BLM^{Ash} variant.

Because you received a **Not Determined** test result, we have no new information about your chance of being a carrier for Bloom syndrome. We cannot estimate your chance because the average chance of being a carrier is not known for your ethnicity.

Test Details

Indications for Use

The 23andMe PGS Carrier Status Test for Bloom Syndrome is indicated for the detection of the BLM^{Ash} variant in the BLM gene. This test is intended to be used to determine carrier status for Bloom syndrome in adults, but cannot determine if a person has two copies of a tested variant. The test is most relevant for people of Ashkenazi Jewish descent.

Special Considerations

- Symptoms of Bloom syndrome may vary between people with the condition even if they have the same genetic variants.
- Carrier testing for Bloom syndrome is recommended by ACMG for people of Ashkenazi Jewish descent considering having children. This test includes the variant recommended for testing by ACMG.

Test Performance Summary

Carrier Detection Rate & Relevant Ethnicities

The "carrier detection rate" is an estimate of the percentage of carriers for this condition that would be identified by this test. Carrier detection rate differs by ethnicity and is provided only where sufficient data is available.

Ashkenazi Jewish	>99%	[3]
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Analytical Performance

Accuracy was determined by comparing results from this test with results from sequencing. Greater than 99% of test results were correct. While unlikely, this test may provide false positive or false negative results. For more details on the analytical performance of this test, refer to the package insert.

Warnings and Limitations

- This test does not cover all variants that could cause this condition.*
- This test does not diagnose any health conditions.
- Positive results in individuals whose ethnicities are not commonly associated with this condition may be incorrect. Individuals in this situation should consider genetic counseling and follow-up testing.
- Share results with your healthcare professional for any medical purposes.
- If you are concerned about your results, consult with a healthcare professional.

See the [Package Insert](#) for more details on use and performance of this test.

* Variants not included in this test may be very rare, may not be available on our genotyping platform, or may not pass our testing standards.

References

- Ellis NA et al. (1998). "The Ashkenazic Jewish Bloom syndrome mutation blmAsh is present in non-Jewish Americans of Spanish ancestry." Am J Hum Genet. 63(6):1685-93.
- German J et al. (2007). "Syndrome-causing mutations of the BLM gene in persons in the Bloom's Syndrome Registry." Hum Mutat. 28(8):743-53.
- Gross SJ et al. (2008). "Carrier screening in individuals of Ashkenazi Jewish descent." Genet Med. 10(1):54-6.
- Sanz MM et al. (2006). "Bloom's Syndrome." [Updated 2016 Apr 7].

Change Log

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

Date	Change
2018-04-07	Bloom Syndrome report created.