The rs1799983 gene polymorphism refers to a single nucleotide variation in the MTHFR (methylenetetrahydrofolate reductase) gene. Specifically, it involves a C to T substitution at position 677 in the gene, which can result in a change from an alanine to a valine amino acid in the protein.

This polymorphism has been associated with altered enzyme activity and changes in folate metabolism, which can affect various biological processes such as DNA methylation and synthesis, homocysteine metabolism, and neurotransmitter synthesis. Some studies have linked this polymorphism to an increased risk of several health conditions, including cardiovascular disease, neural tube defects, and certain cancers.

It's important to note that the rs1799983 polymorphism is just one of many genetic variations that can affect an individual's health and risk of developing certain diseases. Additionally, the impact of this polymorphism can vary depending on an individual's genetic background, lifestyle factors, and other environmental influences. Therefore, genetic testing and counseling may be helpful for individuals who are interested in learning more about their genetic predisposition to certain health conditions.