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# POLG wt Allele

National Cancer Institute

## Source

National Cancer Institute. *POLG wt Allele*. NCI Thesaurus. Code C143070.

Human POLG wild-type allele is located in the vicinity of 15q26.1 and is approximately 30 kb in length. This allele, which encodes DNA polymerase subunit gamma-1 protein, is involved in mitochondrial DNA replication. Mutations in the gene are associated with colorectal cancer, progressive external ophthalmoplegia with mitochondrial DNA deletions 1 (PEOA1), sensory ataxic neuropathy dysarthria and ophthalmoparesis (SANDO), Alpers-Huttenlocher syndrome (AHS), and mitochondrial neurogastrointestinal encephalopathy syndrome (MNGIE).