

POLG2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP2838b**Specification**

POLG2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q9UHN1](#)**POLG2 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 11232

Other Names

DNA polymerase subunit gamma-2, mitochondrial, DNA polymerase gamma accessory 55 kDa subunit, p55, Mitochondrial DNA polymerase accessory subunit, MtPolB, PolG-beta, POLG2, MTPOLB

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2838b](/products/AP2838b) was selected from the C-term region of human POLG2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

POLG2 Antibody (C-term) Blocking Peptide - Protein Information**Name** POLG2 {ECO:0000303|PubMed:30157269, ECO:0000312|HGNC:HGNC:9180}**Function**

Accessory subunit of DNA polymerase gamma solely responsible for replication of mitochondrial DNA (mtDNA). Acts as an allosteric regulator of the holoenzyme activities. Enhances the polymerase activity and the processivity of POLG by increasing its interactions with the DNA template. Suppresses POLG exonucleolytic proofreading especially toward homopolymeric templates bearing mismatched termini. Binds to single-stranded DNA.

Cellular Location

Mitochondrion {ECO:0000250|UniProtKB:P54098}. Mitochondrion matrix, mitochondrion nucleoid {ECO:0000250|UniProtKB:P54098}

POLG2 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

POLG2 Antibody (C-term) Blocking Peptide - Images**POLG2 Antibody (C-term) Blocking Peptide - Background**

The accuracy of mitochondrial DNA (mtDNA) replication depends on the coordinated action of many nuclear-encoded proteins and on the correct balance of nucleotides within the mitochondrial matrix. mtDNA is replicated by DNA polymerase gamma, which is composed of a 140-kD catalytic subunit (POLG1) and a 55-kD accessory subunit (POLG2).

POLG2 Antibody (C-term) Blocking Peptide - References

Longley, M.J., Am. J. Hum. Genet. 78 (6), 1026-1034 (2006) Carrodeguas, J.A., J. Biol. Chem. 277 (51), 50008-50014 (2002)