

Product Name: KD-Validated DNA Polymerase Gamma Recombinant Rabbit Monoclonal Antibody

Catalog #: KVAb00950

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 139.6kDa

Antigen Information

Gene Name	POLG DNA Polymerase Gamma, Catalytic Subunit; POLG1; POLGA; Mitochondrial DNA Polymerase Catalytic Subunit; Polymerase (DNA) Gamma, Catalytic Subunit; Polymerase (DNA Directed), Gamma; DNA Polymerase Subunit Gamma-1; PolG-Alpha; EC 2.7.7.7; MDP1; Mitochondrial Polymerase Gamma Catalytic Subunit; MTDPS4A; MTDPS4B; MIRAS; SANDO; SCAE; PEO
Alternative Names	
Gene ID	5428.0
SwissProt ID	P54098
Immunogen	A synthesized peptide derived from human DNA Polymerase gamma

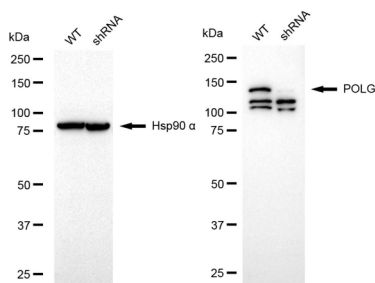
Background

Mitochondrial DNA polymerase is heterotrimeric, consisting of a homodimer of accessory subunits plus a catalytic subunit. The protein encoded by this gene is the catalytic subunit of mitochondrial DNA polymerase. The encoded protein contains a polyglutamine tract near its N-terminus that may be polymorphic. Defects in this gene are a cause of 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). Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

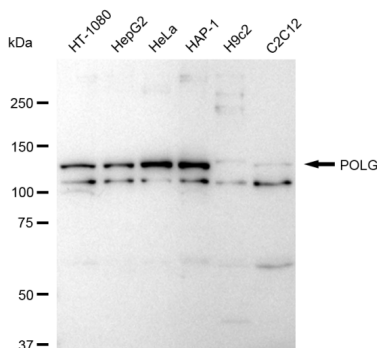
Research Area

Epigenetics and Nuclear Signaling, Metabolism

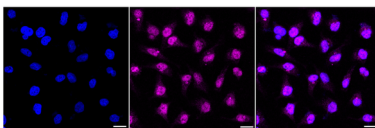
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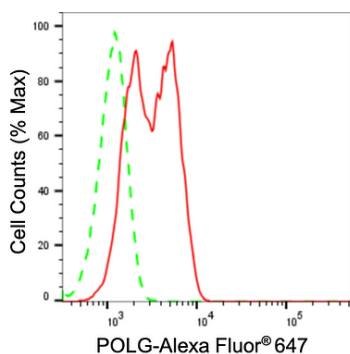
Western blotting analysis using POLG antibody (KVA00950). POLG expression in wild-type (WT) and POLG shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with POLG antibody (KVA00950, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using POLG antibody (KVA00950). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with POLG antibody (KVA00950, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HeLa cells with POLG antibody (KVA00950, 1:1,000). Nuclei were stained blue with DAPI; POLG was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain:Medium. Scale bar: 20 µm.



Flow cytometric analysis of POLG expression in HeLa cells using POLG antibody (KVA00950, 1:2,000). Green, isotype control; red, POLG.

