POLG Antibody / DNA polymerase subunit gamma 1 (F54379)

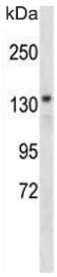
Catalog No.	Formulation	Size
F54379-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54379-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

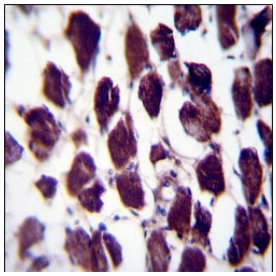
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
UniProt	P54098
Localization	Cytoplasmic
Applications	Immunofluorescence : 1:25 Flow Cytometry : 1:25 (1x10e6 cells) Western Blot : 1:500-1:2000 Immunohistochemistry (FFPE) : 1:25
Limitations	This POLG antibody is available for research use only.



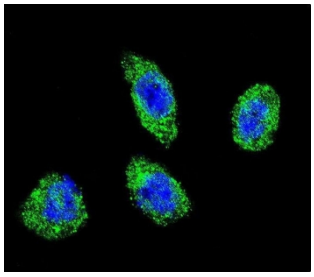
Western blot testing of human HepG2 cell lysate with POLG antibody. Predicted molecular weight ~140 kDa.



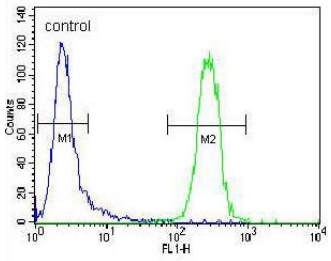
Western blot testing of mouse cerebellum lysate with POLG antibody. Predicted molecular weight ~140 kDa.



IHC testing of FFPE human skeletal muscle tissue with POLG antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



Immunofluorescent staining of fixed and permeabilized human HeLa cells with POLG antibody (green) and DAPI nuclear stain (blue).



Flow cytometry testing of fixed and permeabilized human CEM cells with POLG antibody; Blue=isotype control, Green= POLG antibody.

Description

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.

Application Notes

The stated application concentrations are suggested starting points. Titration of the POLG antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1120-1148 from the human protein was used as the immunogen for the POLG antibody.

Storage

Aliquot the POLG antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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