

For Research Use Only

POLQ Polyclonal antibody

Catalog Number: 28590-1-AP



Basic Information

Catalog Number:

28590-1-AP

Size:

150ul, Concentration: 450 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG29643

GenBank Accession Number:

NM_199420

GeneID (NCBI):

10721

UNIPROT ID:

O75417

Full Name:

polymerase (DNA directed), theta

Calculated MW:

290 kDa

Observed MW:

250-290 kDa, 197 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:1000

IF/ICC 1:300-1:1200

Applications

Tested Applications:

WB, IF/ICC, ELISA

Species Specificity:

human, rat

Positive Controls:

WB : HeLa cells, HuH-7 cells, HepG2 cells, L02 cells

IF/ICC : A375 cells, A431 cells

Background Information

DNA Polymerase Theta (POLQ) is a DNA polymerase involved in error-prone translesion DNA synthesis (TLS) and error-prone repair of DNA double-strand breaks (DSBs). The enzyme has several unique properties, including low fidelity and the ability to insert and extend past abasic sites and thymine glycol lesions. Accumulating evidence showed that POLQ participates in the development and progression of human cancers because of its critical functions in the repair of genomic double-strand breaks (PMID: 34517891, 27264557). The POLQ cDNA encodes a polypeptide of 2592 amino acids with a predicted mass of 290 kDa, but POLQ is readily proteolyzed with smaller bands at approximately 70 kDa and 110 kDa (PMID: 17334634, 14576298).

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

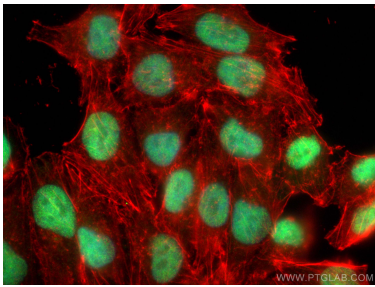
For technical support and original validation data for this product please contact:

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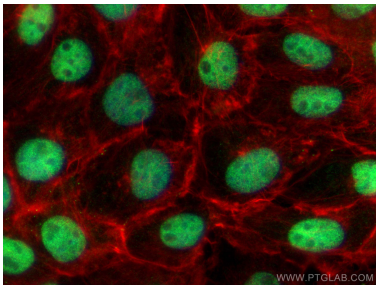
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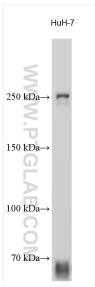
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed A375 cells using POLQ antibody (28590-1-AP) at dilution of 1:600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed A431 cells using POLQ antibody (28590-1-AP) at dilution of 1:600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).



Various lysates were subjected to SDS PAGE followed by western blot with 28590-1-AP (POLQ antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 28590-1-AP (POLQ antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.