

POLQ Polyclonal antibody

Catalog Number: 28590-1-AP

Basic Information

Catalog Number: 28590-1-AP	GenBank Accession Number: NM_199420	Purification Method: Antigen affinity purification
Size: 450 µg/ml	GeneID (NCBI): 10721	Recommended Dilutions: WB 1:500-1:1000 IF/ICC 1:300-1:1200
Source: Rabbit	UNIPROT ID: O75417	
Isotype: IgG	Full Name: polymerase (DNA directed), theta	
Immunogen Catalog Number: AG29643	Calculated MW: 290 kDa Observed MW: 250-290 kDa, 70-110 kDa	

Applications

Tested Applications: WB, IF/ICC, ELISA	Positive Controls:
Species Specificity: Human, Rat	WB : HuH-7 cells, HeLa cells, HepG2 cells IF/ICC : A375 cells, A431 cells

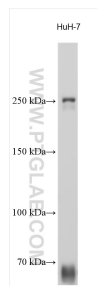
Background Information

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).

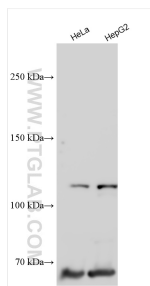
Storage

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

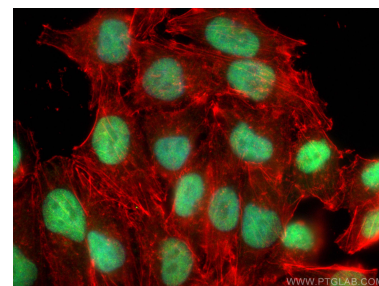
Selected Validation Data



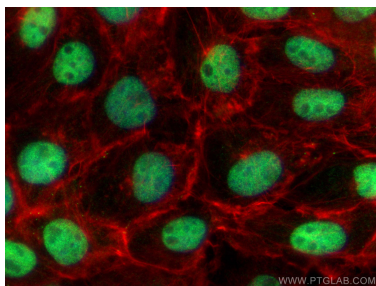
Various lysates were subjected to SDS PAGE followed by western blot with 28590-1-AP (POLQ antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



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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).