ARG59044
anti-POLH / DNA Polymerase Eta antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes POLH / DNA Polymerase Eta
Tested Reactivity	Hu, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	POLH / DNA Polymerase Eta
Species	Human
Immunogen	Recombinant protein corresponding to A157-R361 of Human POLH.
Conjugation	Un-conjugated
Alternate Names	Xeroderma pigmentosum variant type protein; RAD30; RAD30A; XP-V; DNA polymerase eta; EC 2.7.7.7; RAD30 homolog A; XPV

Application Instructions

Application table

Application	Dilution
WB	0.1 - 0.5 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

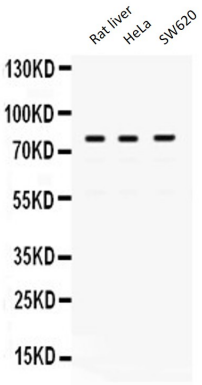
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	POLH
Gene Full Name	polymerase (DNA directed), eta
Background	This gene encodes a member of the Y family of specialized DNA polymerases. It copies undamaged DNA with a lower fidelity than other DNA-directed polymerases. However, it accurately replicates UV-damaged DNA; when thymine dimers are present, this polymerase inserts the complementary nucleotides in the newly synthesized DNA, thereby bypassing the lesion and suppressing the mutagenic effect of UV-induced DNA damage. This polymerase is thought to be involved in hypermutation during immunoglobulin class switch recombination. Mutations in this gene result in XPV, a variant type of xeroderma pigmentosum. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2014]
Function	DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high fidelity DNA polymerases cannot proceed and DNA synthesis stalls. Plays an important role in the repair of UV-induced pyrimidine dimers. Depending on the context, it inserts the correct base, but causes frequent base transitions and transversions. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have lyase activity. Targets POLI to replication foci. [UniProt]
Calculated Mw	78 kDa
PTM	Monoubiquitinated by RCHY1/PIRH2; ubiquitination inhibits the ability of PolH to interact with PCNA and to bypass UV-induced lesions. [UniProt]
Cellular Localization	Nucleus. Accumulates at replication forks after DNA damage. [UniProt]

Images



ARG59044 anti-POLH / DNA Polymerase Eta antibody WB image

Western blot: 50 µg of Rat liver, 40 µg of HeLa and 40 µg of SW620 lysates stained with ARG59044 anti-POLH / DNA Polymerase Eta antibody at 0.5 µg/ml dilution.