Purified anti-DNA-PKcs Phospho (Thr2609) Antibody

Catalog# / Size  612901 / 25 µg
                  612902 / 100 µg
Clone            10B1
Regulatory Status RUO
Other Names      DNA-protein kinase catalytic subunit, DNA-activated protein kinase, DNA-dependent protein kinase
Isotype          Mouse IgG1, κ

Description DNA-protein kinase catalytic subunit (DNA-PKcs) also known as DNA-activated kinase is a nuclear 460-470 kD serine threonine kinase involved in double-stranded DNA break repair, VDJ recombination, and transcriptional modulation. DNA-PKcs must bind DNA ends to become active. DNA-PKcs is modified by phosphorylation and has been shown to interact with Ku70/Ku80, KIP, DNA-ligase IV, and XRCC4 proteins. Phosphorylated DNA-PKcs is upregulated after DNA damage. The 10B1 monoclonal antibody recognizes phosphorylated human DNA-PKcs (Thr2609) and has been shown to be useful for immunofluorescence staining and Western blotting.

Product Details

Verified Reactivity Human
Antibody Type Monoclonal
Host Species Mouse
Immunogen Modified peptide
Formulation This DNA-PKcs antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. Final antibody concentration is 0.5 mg/ml.
Preparation The antibody was purified by affinity chromatography.
Concentration 0.5 mg/ml
Storage & Handling Upon receipt, store undiluted between 2°C and 8°C.
Application ICC - Quality tested
Recommended Usage Each lot of this antibody is quality control tested by immunocytochemistry. For immunocytochemistry, a concentration range of 5.0 - 10 µg/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
Product Citations
RRID AB_315784 (BioLegend Cat. No. 612901)
AB_315785 (BioLegend Cat. No. 612902)

Antigen Details

Structure PI3/PI4-Kinases family. Spliced products 460 kD, 470 kD
Distribution Nuclear
Function Serine/Threonine kinase, dsDNA break repair, VDJ recombination, transcriptional modulator
Interaction Ku70/Ku80, KIP, DNA-ligase IV, XRCC4
Modification: Phosphorylation

Biology Area: Cell Biology, Cell Cycle/DNA Replication, DNA Repair/Replication, Signal Transduction, Transcription Factors

Molecular Family: Phospho-Proteins, Protein Kinases/Phosphatase

Antigen References:

Regulation: Must bind DNA ends to become active

Gene ID: 5591

Related Protocols

Immunocytochemistry Staining Protocol

Other Formats

Purified anti-DNA-PKcs Phospho (Thr2609)

Product Data

3 minutes UV treated HeLa cells (recovered 30 minute) were fixed with 4% paraformaldehyde (PFA) and then were permeabilized with 0.5% Triton X-100 followed by blocking with 5% FBS. The cells were then intracellularly stained with 5 µg/ml anti-DNA-PKcs phospho [Thr2609] (clone 10B1) antibody in blocking buffer overnight at 4°C followed by staining with Alexa Fluor® 488 conjugated goat anti-mouse IgG antibody (clone Poly4053) for one hour at room temperature. The images were captured with a 40X objective.

Untreated HeLa cells were fixed with 4% paraformaldehyde (PFA) and then were permeabilized with 0.5% Triton X-100 followed by blocking with 5% FBS. The cells were then intracellularly stained with 5 µg/ml anti-DNA-PKcs phospho (Thr2609) (clone 10B1) antibody in blocking buffer overnight at 4°C followed by staining with Alexa Fluor® 488 conjugated goat anti-mouse IgG antibody (clone Poly4053) for one hour at room temperature. The images were captured with a 40X objective.

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