

Catalog #: 61478

Aliases

LIG4; DNA Ligase 4; Polydeoxyribonucleotide Synthase [ATP] 4; DNA Ligase IV; Ligase IV, DNA, ATP-Dependent; Polynucleotide Ligase; DNA Repair Enzyme; DNA Joinase; EC 6.5.1.1; Sealase; LIG4S

Background

Gene Name: LIG4 NCBI Gene Entry: 3981 UniProt Entry: P49917

Application Information

Molecular Weight: Predicted, 104 kDa, observed, 103 kDa

Clonality: Rabbit monoclonal antibody

Clone ID: 23GB2515

Species Reactivity: Human

Applications Tested: Western blotting (WB), flow cytometry (FCM), immunocytochemistry (IC)

Immunogen

A synthesized peptide derived from human DNA Ligase IV

Isotype

Rabbit IgG

Storage Buffer

Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.

Storage

Store at -20 °C for one year.

Recommended Dilutions

Western Blotting (WB): 1:1,000-1:5,000

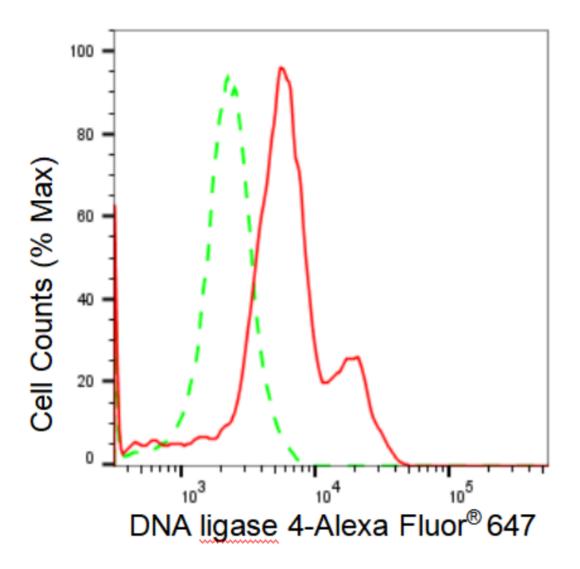
Flow Cytometry (FCM): 1:2,000

Immunocytochemistry (IC): 1:100-1:1,000

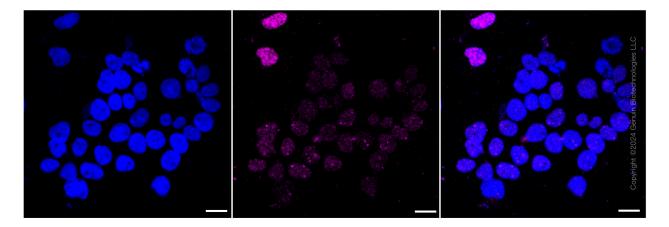
Note: This product is for research use only.

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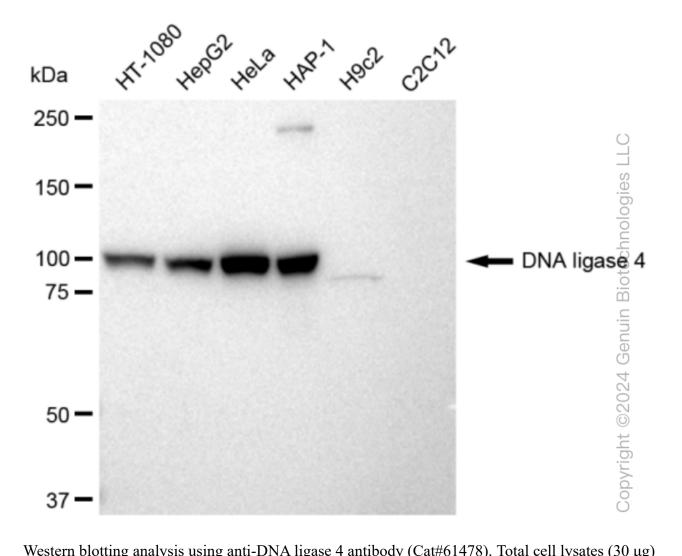
Validation Data



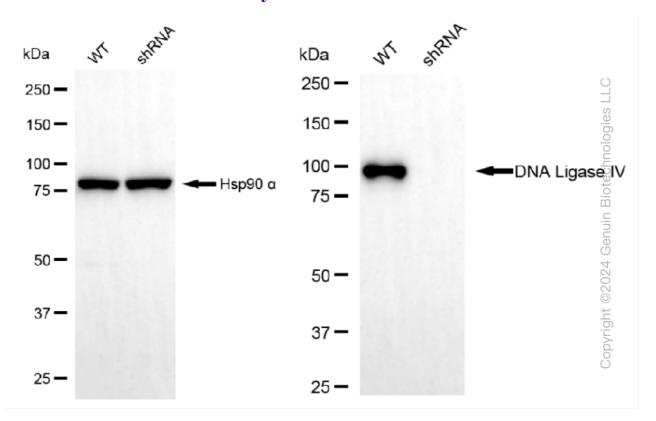
Flow cytometric analysis of DNA ligase 4 expression in HeLa cells using DNA ligase 4 antibody (Cat#61478, 1:2,000). Green, isotype control; red, DNA ligase 4.



Immunocytochemical staining of Hela cells with DNA ligase 4 antibody (Cat#61478, 1:1,000). Nuclei were stained blue with DAPI; DNA ligase 4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar: 20 μm.

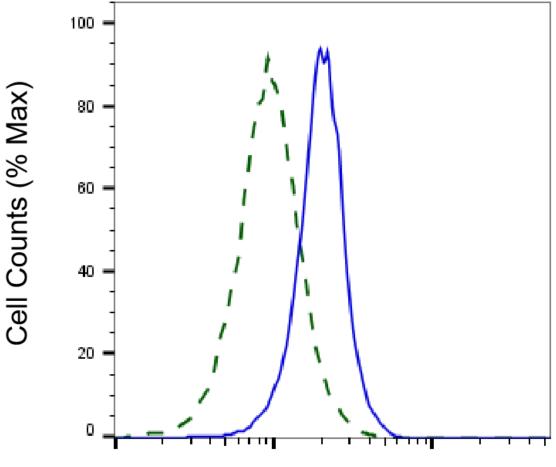


Western blotting analysis using anti-DNA ligase 4 antibody (Cat#61478). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-DNA ligase 4 antibody (Cat#61478, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQTM ECL Substrate Kit (Cat#226).



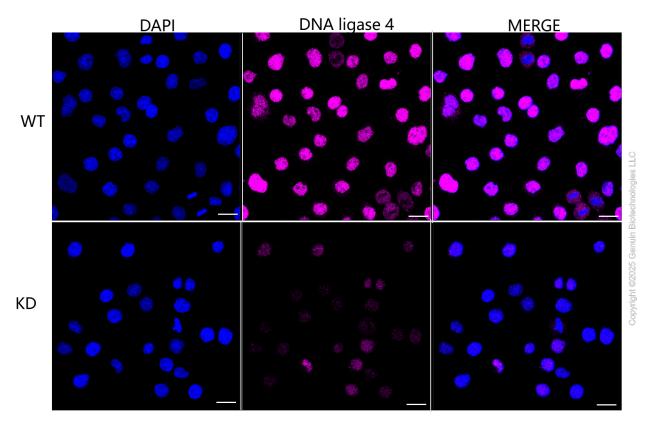
Western blotting analysis using anti-DNA ligase 4 antibody (Cat#61478). DNA ligase 4 expression in wild type (WT) and DNA ligase 4 shRNA knockdown (KD) HeLa cells with 30 μg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-DNA ligase 4 antibody (Cat#61478, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQTM ECL Substrate Kit (Cat#226).





DNA ligase 4-Alexa Fluor® 647

Validation of DNA ligase 4 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with anti-DNA ligase 4 antibody (Cat#61478, 1:2,000) and analyzed using BD flow cytometer.



Immunocytochemical staining of HeLa cells using anti-DNA ligase 4 antibody (Cat#61478, 1:1,000), Top panel: wild-type (WT); Bottom panal: DNA ligase 4 shRNA knockdown (KD). Nuclei were stained blue with DAPI; DNA ligase 4 was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm. Permeabilization: Triton.