

Anti-*E. coli* DNA Photolyase antibody, rabbit polyclonal

61-013 200 µg

Shipping and Storage: Ship at 4°C or -20°C and store at -20°C. Do not repeat freeze-thaw cycle

Immunogen: Recombinant full-size *E. coli* Cyclobutane Pyrimidine Dimer Photolyase.

Form: 2 mg/ml in PBS⁻ with 50% glycerol, sterilized by ultrafiltration.

Purity: Protein A-affinity purified IgG.

Validation: Purified *E. coli* photolyase.

Reactivity: Reacts with *E. coli* pyrimidine dimer photolyase

Applications:

1. Western blot (1/1,000)
2. Immunoprecipitation (1/200)
3. ELISA (assay dependent)

Background: Cyclobutane Pyrimidine Dimer photolyase (Deoxyribodipyrimidine photo-lyase) is involved in repair of UV radiation-induced DNA damage. Catalyzes the light-dependent monomerization (300-600 nm) of cyclobutyl pyrimidine dimers (in cis-syn configuration), which are formed between adjacent bases on the same DNA strand upon exposure to ultraviolet radiation. Upon absorption of visible light electrons are transferred from Trp-307 through Trp-360 to Trp-383, and from there to FADH, giving rise to the fully reduced catalytic FADH[•]. Length:472 aa. Mass (Da):53,667

Data Link: UniProtKB [P00914](http://www.uniprot.org/entry/P00914) (PHR_ECOLI)

Related Product: 01-013. *E. coli* DNA Photolyase (Cyclobutane Pyrimidine Dimer Photolyase)

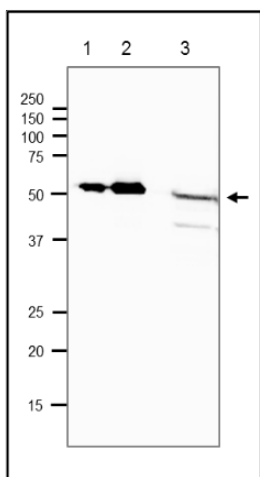


Fig.1 Western blot of *E. coli* photolyase

1. Purified Photolyase 8.4 ng
2. Purified Photolyase 42 ng
3. *E. coli* crude lysate, 40 µg

SDS-PAGE 12.5% gel. Blotting: 15 v, overnight, Blocking by 5% skim milk
Anti-Photolyase antibody used at 1/1,000 dilution.

2nd antibody: Goat anti-rabbit IgG (H & L) (ab97051) used at 1/10,000.

Note that there are only 10-20 molecules of photolyase per *E. coli* cell.

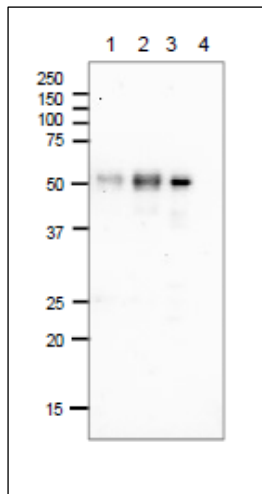


Fig 2 Immunoprecipitationm of *E. coli* Photolyase

Immunoprecipitation was performed by using Dynabeads Magnetic system (Thermo Fisher).

1. *E. coli* AB1157 cell lysate (300 μ g), antibody 2 μ g
2. *E. coli* AB1157 cell lysate (300 μ g), antibody 10 μ g
3. Positve control: *E. coli* Photolyase purified, 4.2 μ g, antibody 10 μ g
4. Negative control: No sample, antibody 10 μ g

Western blot: Anti-Photolyase antibody used at 1/1,000 dilution and as the second antibody, HRP-conjugated goat anti-rabbit IgG VeriBlot for IP (ab131366) was used at 1/1,000 dilution.