E. coli DNA Photolyase (Cyclobutane Pyrimidine Dimer Photolyase)

Product code	01-013
Size	20 µg
Storage	Ship at 4℃ or -20℃ and store at -20℃. Avoid freeze-thaw cycles.
Product Description	Purified recombinant full-size E. coli Photolyase (Deoxyribodipyrimidine photolyase) as described in Sancar A, Smith FW, Sancar GB. Purification of Escherichia coli DNA photolyase J Biol Chem. 1984 May 10;259(9):6028-32. PMID: 6325459 Length:472 aa. Mass (Da):53,667
Concentration	0.4 mg/ml
Buffer	25 mM Tris-HCI (pH 7.4), 50 mM KCl, 0.5 mM EDTA, 5 mM ß-mercaptoethanol, 50% Glycerol
Purity	Over 95% by SDS-PAGE
Application	1. SDS-PAGE 2. Western blot 3. Immunoprecipitation 4. ELISA 5. Functional Studies
Background	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-.
Data Link	UniProtKB: P00914 (PHR_ECOLI)
Related product	61-013 Anti-*E.coli* DNA Photolyase antibody, rabbit polyclonal
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

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Data Images: 01-013 *E. coli* DNA Photolyase (Cyclobutane Pyrimidine Dimer Photolyase)

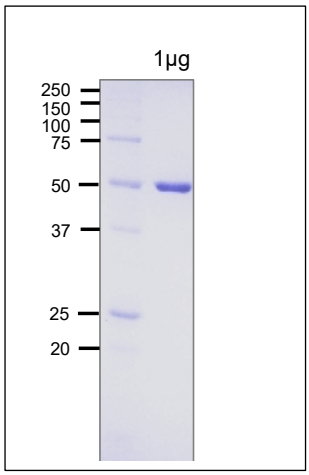

Fig 1. SDS-PAGE analysis of E. coli Photolyase

1 μg of Photolyase was applied and analyzed on 12% SDS-PAEG.

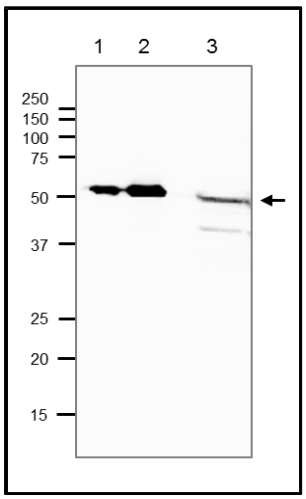

Fig.2 Western blot of E. coli photolyase

Samples

1. Purified Photolyase 8.4 ng
2. Purified Photolyase 42 ng
3. E. coli crude lysate

SDS-PAGE 12.5% gel

Blotting: 15 v, overnight, Bloking 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.

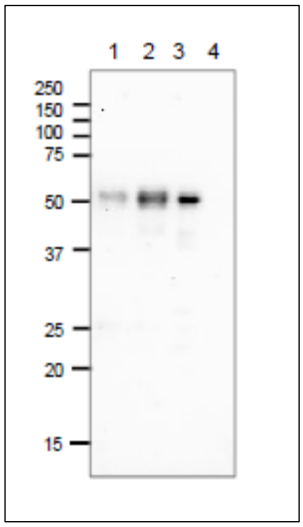

Fig 3 Immunoprecipitationm of E. coli Photolyase

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

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

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.

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