# Recombinant Sulfolobus solfataricus DNA-binding protein 7d (sso7d)

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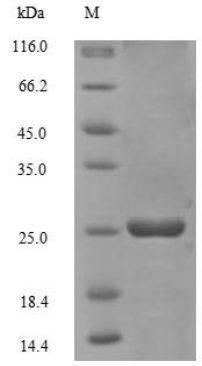
| **Product Code** | CSB-EP334566FPM |
| **Relevance** | Constrain negative DNA supercoils; may be involved in maintaining the integrity of their genome at high tperature. Stimulates the Holliday junction cleavage activity of Hjc. |
| **Abbreviation** | Recombinant Sulfolobus solfataricus sso7d protein |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | P39476 |
| **Alias** | 7 kDa DNA-binding protein dSso7d |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Sulfolobus solfataricus (strain ATCC 35092 / DSM 1617 / JCM 11322 / P2) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | ATVKFKYKGEEKEVDISKIKKVWRVGKMISFTYDEGGGKTGRGAVSEKDAPKE LLQMLEKQKK |
| **Research Area** | Others |
| **Source** | E.coli |
| **Target Names** | sso7d |
| **Expression Region** | 2-64aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-SUMO-tagged |
| **Mol. Weight** | 23.1kDa |
| **Protein Length** | Full Length of Mature Protein |
| **Image** | |




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The region for expressing recombinant Sulfolobus solfataricus sso7d contains amino acids 2-64. The theoretical molecular weight of the sso7d protein is 23.1 kDa. This sso7d protein is produced using e.coli expression system. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of sso7d, which enables a simple process of detecting and purifying the sso7d recombinant protein in the following steps.

Sulfolobus solfataricus DNA-binding protein 7d (Sso7d) is a small, highly basic protein that plays a role in DNA compaction and organization within the archaeal cell. Sso7d has a unique structural feature known as an oligo-arginine "arm" that extends from its core structure. This arm is responsible for the strong electrostatic interactions with the negatively charged phosphate backbone of DNA, facilitating the binding of Sso7d to DNA. Research on Sso7d has contributed to the understanding of archaeal chromatin structure and the mechanisms by which Sulfolobus solfataricus adapts to its harsh environments. Additionally, the DNA-binding properties of Sso7d have made it a valuable tool in biotechnological applications, such as a DNA-stabilizing agent in polymerase chain reaction (PCR) and DNA storage.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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