

Recombinant E. coli Glucose 6 Phosphate Dehydrogenase protein ab87414

1 Image

Description

| | | | |
|---------------------|---|--|--|
| Product name | Recombinant E. coli Glucose 6 Phosphate Dehydrogenase protein | | |
| Biological activity | Specific activity is 8-10 units/ml obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NAD or NADP. One unit oxidizes 1.0 umole D-glucose-6-phosphate to 6-phospho-D-gluconate per min in the presence of beta-NADP at pH 7.4 at 25C. Specific activity is 8-10 units/ml obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NAD or NADP. One unit oxidizes 1.0 umole D-glucose-6-phosphate to 6-phospho-D-gluconate per min in the presence of beta-NADP at pH 7.4 at 25C. | | |
| Purity | > 90 % SDS-PAGE. Purified by conventional chromatography techniques. | | |
| Expression system | Escherichia coli | | |
| Protein length | Full length protein | | |
| Animal free | No | | |
| Nature | Recombinant | | |
| Species | Escherichia coli | | |
| Sequence | MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAATK VVREALETFM KETIDEGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP PSTFGAICKG LGEAKLNAKP ARVVMKPLG TSLATSQEIN DQVGEYFEEC QVYRIDHYLG KETVLNLLAL RFANSLFVNN WDNRTIDHVE ITVAEEVGIE GRWGYFDKAG QMRDMIQNLH LQILCMIAMS PPSDLSADSI RDEKVKVLKS LRRIDRSNVR EKTVRGQYTA GFAQGKKVPG YLEEEGANKS SNTETFVAIR VDIIDNWRWAG VPFYLRGKR LPTKCSEVVV YFKTPELNLF KESWQDLPQN KLTRLQPD EGVDIQVLNKV PGLDHKHNLQ ITKLDLSYSE TFNQTHLADA YERLLEETMR GIQALFVRRD EVEEAWKWVD SITEAWAMDN DAPKPYQAGT WGPVASVAMI TRDGRSWNEF E | | |

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| Description | Recombinant E. coli Glucose 6 Phosphate Dehydrogenase protein |
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Specifications

Our **Abpromise guarantee** covers the use of **ab87414** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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|---------------------|--------------------|
| Applications | SDS-PAGE |
| | Functional Studies |

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|-------------|--------|
| Form | Liquid |
|-------------|--------|

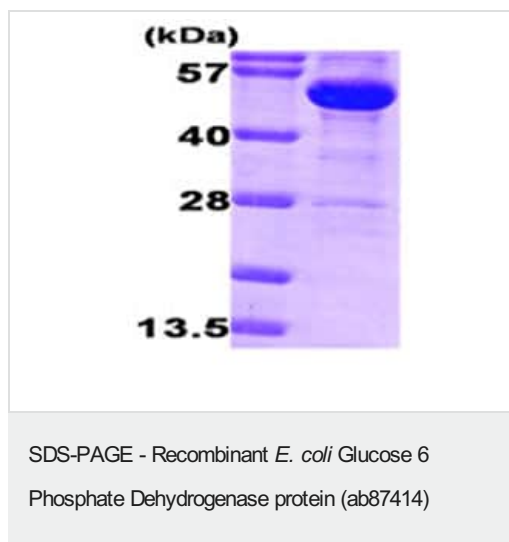
Preparation and Storage

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|------------------------------|---|
| Stability and Storage | Shipped at 4°C. Store at +4°C. pH: 7.4 Constituents: 0.975% MES, 0.00174% PMSF, 0.0077% DTT, 0.0584% EDTA, 10% Glycerol (glycerin, glycerine) This product is an active protein and may elicit a biological response in vivo, handle with caution. |
|------------------------------|---|

General Info

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| Function | Catalyzes the rate-limiting step of the oxidative pentose-phosphate pathway, which represents a route for the dissimilation of carbohydrates besides glycolysis. The main function of this enzyme is to provide reducing power (NADPH) and pentose phosphates for fatty acid and nucleic acid synthesis. |
| Tissue specificity | Isoform Long is found in lymphoblasts, granulocytes and sperm. |
| Pathway | Carbohydrate degradation; pentose phosphate pathway; D-ribulose 5-phosphate from D-glucose 6-phosphate (oxidative stage): step 1/3. |
| Involvement in disease | Anemia, non-spherocytic hemolytic, due to G6PD deficiency |
| Sequence similarities | Belongs to the glucose-6-phosphate dehydrogenase family. |
| Post-translational modifications | Acetylated by ELP3 at Lys-403; acetylation inhibits its homodimerization and enzyme activity. Deacetylated by SIRT2 at Lys-403; deacetylation stimulates its enzyme activity. |

Images



ab87414 on 15% SDS-PAGE (4μg)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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