

Product datasheet

Recombinant human Glucose 6 Phosphate Dehydrogenase protein ab126671

[1 Image](#)

Description

Product name	Recombinant human Glucose 6 Phosphate Dehydrogenase protein
Biological activity	Specific activity is > 7 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 25°C
Purity	> 95 % SDS-PAGE. Affinity purified
Expression system	Baculovirus infected BTI-TN-5B1-4 cells
Accession	<u>P11413</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<pre> MGSSHHHHHH SSGLVPRGSH MAEQVALSRT QVCGILREEL FQGDAFHQSD THIFIIMGAS GDLAKKKIYP TIWWLFRDGL LPENTFIVGY ARSRLTVADI RKQSEPPFFKA TPEEKLKLED FFARNSYVAG QYDDAASYQR LNSHMNALHL GSQANRLFYL ALPPTVYEAV TKNIHESCMS QIGWNRIVE KPFGRDLQSS DRLSNHISL FREDQYRID HYLKEMVQN LMVLRFANRI FGPIWNRDNI ACVILTFKEP FGTEGRGGYF DEFGIIRDVM QNHLLQMLCL VAMEKPASTN SDDVRDEKVK VLKCISEVQA NNVVLGQYVG NPDGEGEATK GYLDDPTVPR GSTTATFAAV VLYVENERWD GVPFILRCGK ALNERKAEVR LQFHDVAGDI FHQQCKRNEL VIRVQPNEAV YTKMMTKKPG MFFNPEESEL DLTYGNRYKN VKLPDAYERL ILDVFCGSQM HFVRSDELRE AWRIFTPLLH QIELEKPKPI PYYGSRGPT EADELMKRVG FQYEGTYKWW NPHKL </pre>
Predicted molecular weight	61 kDa including tags
Amino acids	1 to 515
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab126671** in the following tested applications.

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

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.002% PMSF, 0.03% DTT, 0.32% Tris HCl, 0.06% EDTA, 20% Glycerol, 1.17% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

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.

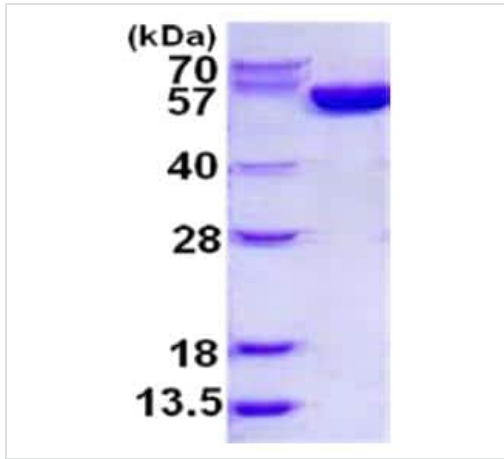
Pathway Carbohydrate degradation; pentose phosphate pathway; D-ribulose 5-phosphate from D-glucose 6-phosphate (oxidative stage): step 1/3.

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



15% SDS-PAGE analysis of ab126671 (3µg)

SDS-PAGE - Recombinant human Glucose 6
Phosphate Dehydrogenase protein (ab126671)

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

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