

Product datasheet

# Recombinant human Glucose 6 Phosphate Dehydrogenase protein ab126671

1 Image

Description

<b>Product name</b>	Recombinant human Glucose 6 Phosphate Dehydrogenase protein
<b>Biological activity</b>	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
<b>Purity</b>	> 95 % SDS-PAGE. ab126671 was purified using conventional chromatography.
<b>Expression system</b>	Baculovirus infected BTI-TN-5B1-4 cells
<b>Accession</b>	<a href="#">P11413</a>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Sequence</b>	<pre> MGSSHHHHHH SSGLVPRGSH MAEQVALSRT QVCGILREEL FQGDAFHQSD THIFIIMGAS GDLAKKKIYP TMWWLFRDGL LPENTFIVGY ARSRLTVADI RKQSEPPFFKA TPEEKLKLED FFARNSYVAG QYDDAASYQR LNSHMNALHL GSQANRLFYL ALPPTVYEAV TKNIHESCMS QIGWNRIVE KPFGRDLQSS DRLSNHISL FREDQYRID HYL GKEMVQN 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>
<b>Predicted molecular weight</b>	61 kDa including tags
<b>Amino acids</b>	1 to 515
<b>Tags</b>	His tag N-Terminus

## Specifications

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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

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**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

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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

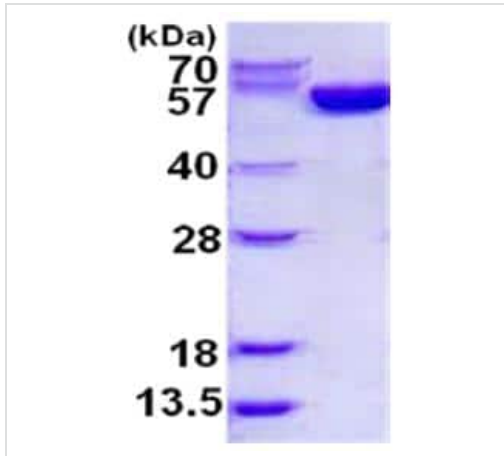
**Sequence similarities** Belongs to the glucose-6-phosphate dehydrogenase family.

**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.

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## Images

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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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