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Datasheet for ABIN3080301

Glucose-6-Phosphate Dehydrogenase Protein (G6PD) (AA 2-515) (His tag)

Overview

Quantity:	1 mg
Target:	Glucose-6-Phosphate Dehydrogenase (G6PD)
Protein Characteristics:	AA 2-515
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Glucose-6-Phosphate Dehydrogenase protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence: AEQVALSRTQ VCGILREELF QGDAFHQSDT HIFIIMGASG DLAKKKIYPT IWWLFRDGLL
PENTFIVGYA RSRLTVADIR KQSEPPFKAT PEEKLKLEDF FARNYSVAGQ YDDAASYQRL
NSHMNALHLG SQANRLFYLA LPPTVYEAVT KNIHESCMSQ IGWNRIVEK PFGRDLQSSD
RLSNHISSLF REDQIYRIDH YLGKEMVQNL MVLRFANRIF GPIWNRDNIA CVILTFKEPF
GTEGRGGYFD EFGIIRDVMQ NHLLQMLCLV AMEKPASTNS DDVRDEKVKV LKCISEVQAN
NVVLGQYVGN PDGEGEATKG YLDDPTVPRG STTATFAAVV LYVENERWDG VPFILRCGKA
LNERKAEVRL QFHDVAGDIF HQQCKRNELV IRVQPNEAVY TKMMTKKPGM FFNPEESEL
LTYGNRYKNV KLPDAYERLI LDVFCGSQMH FVRSDELREA WRIFTPLLHQ IELEKPKPIP
YIYGSRGPTA ADELTKRVGF QYEGTYKVVN PHKL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Product Details

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human G6PD Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.</p> <p>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.</p> <p>In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).</p> <p>When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.</p> <p>The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.</p> <p>The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.</p>
Purification:	<p>Two step purification of proteins expressed in baculovirus infected SF9 insect cells:</p> <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Glucose-6-Phosphate Dehydrogenase (G6PD)
Alternative Name:	G6PD (G6PD Products)
Background:	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. {ECO:0000269 PubMed:15858258, ECO:0000269 PubMed:24769394}.
Molecular Weight:	60.1 kDa Including tag.
UniProt:	P11413
Pathways:	Regulation of Systemic Arterial Blood Pressure by Hormones

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)