

G6PD Protein, Human (HEK293, His)

Cat. No.:	HY-P70283
Synonyms:	rHuGlucose-6-phosphate 1-dehydrogenase/G6PD, His; Glucose-6-Phosphate 1-Dehydrogenase; G6PD
Species:	Human
Source:	HEK293
Accession:	P11413-1 (A2-L515)
Gene ID:	2539
Molecular Weight:	55-62 kDa

PROPERTIES

AA Sequence

A E Q V A L S R T Q	V C G I L R E E L F	Q G D A F H Q S D T	H I F I I M G A S G
D L A K K K I Y P T	I W W L F R D G L L	P E N T F I V G Y A	R S R L T V A D I R
K Q S E P F F K A T	P E E K L K L E D F	F A R N S Y V A G Q	Y D D A A S Y Q R L
N S H M N A L H L G	S Q A N R L F Y L A	L P P T V Y E A V T	K N I H E S C M S Q
I G W N R I I V E K	P F G R D L Q S S D	R L S N H I S S L F	R E D Q I Y R I D H
Y L G K E M V Q N L	M V L R F A N R I F	G P I W N R D N I A	C V I L T F K E P F
G T E G R G G Y F D	E F G I I R D V M Q	N H L L Q M L C L V	A M E K P A S T N S
D D V R D E K V K V	L K C I S E V Q A N	N V V L G Q Y V G N	P D G E G E A T K G
Y L D D P T V P R G	S T T A T F A A V V	L Y V E N E R W D G	V P F I L R C G K A
L N E R K A E V R L	Q F H D V A G D I F	H Q Q C K R N E L V	I R V Q P N E A V Y
T K M M T K K P G M	F F N P E E S E L D	L T Y G N R Y K N V	K L P D A Y E R L I
L D V F C G S Q M H	F V R S D E L R E A	W R I F T P L L H Q	I E L E K P K P I P
Y I Y G S R G P T E	A D E L M K R V G F	Q Y E G T Y K W V N	P H K L

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Solution.

Formulation Supplied as a 0.2 µm filtered solution of 20mM Citrate, 15% Trehalose, 150mM NaCl, 0.05% Tween 80, pH5.5.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution N/A.

Storage & Stability Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping Shipping with dry ice.

DESCRIPTION

Background

The G6PD (Glucose-6-Phosphate Dehydrogenase) protein is a pivotal enzyme that catalyzes the rate-limiting step in the oxidative pentose-phosphate pathway, offering an alternative route for carbohydrate dissimilation alongside glycolysis. The primary function of G6PD is to provide essential reducing power in the form of NADPH and pentose phosphates, which play critical roles in fatty acid and nucleic acid synthesis. NADPH is crucial for maintaining cellular redox balance and serves as a cofactor for various biosynthetic processes, while pentose phosphates contribute to the synthesis of nucleotides and other cellular components. G6PD's central role in cellular metabolism underscores its significance in supporting anabolic pathways essential for cell growth and proliferation.

Caution: Product has not been fully validated for medical applications. For research use only.

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