

G6PD Antibody

*Glucose-6-Phosphate Dehydrogenase, Mouse Anti Human
ABM0267*

Product Overview

Name G6PD Antibody

Description

Glucose-6-Phosphate Dehydrogenase, Mouse Anti Human

Synonyms

G6PD, G6PD1, Glucose-6-phosphate 1-dehydrogenase.

Introduction

G6PD is the rate-limiting enzyme of the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells by maintaining the level of NADPH. G6PD converts glucose-6-phosphate into 6-phosphoglucono- γ -lactone and at the same time produces NADPH. The NADPH maintains the level of glutathione in these cells that helps protect the red blood cells against oxidative damage. G6PD deficiency causes acute hemolytic anemia, neonatal jaundice or acute hemolysis. G6PD is a cytosolic enzyme encoded by an X-linked gene whose main function is to produce NADPH, a crucial electron donor in the defense against oxidizing agents and in reductive biosynthetic reactions. G6PD produces pentose sugars for nucleic acid synthesis and is a main producer of NADPH reducing power.

Source

Escherichia Coli.

Physical Appearance

Sterile filtered colorless solution.

Formulation

The G6PD protein contains 50mM MES 6.0, 0.1mM PMSF, 2mM EDTA, 0.5mM DTT and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

MAVTQTAQAC DLVIFGAKGD LARRKLLPSL YQLEKAGQLN PDTRIIGVGR ADWDKAAYTK VVREALETFM
KETID EGLWD TLSARLDFCN LDVNDTAAFS RLGAMLDQKN RITINYFAMP PSTFGAICKG LGEAKLNAKP

ARVVM EKPLG TSLATSQEIN DQVGEYFEEC QVYRIDHYLG KETVLNLLAL RFANSLFVNN WDNRTIDHVE
ITVAEEVGIE GRWGYFDKAG QMRDMIQ NHL LQILCMIAMS PPSDLSADSI RDEKVKVLKS LRRIDRSNVR
EKTVRGQYTA GFAQGKKVPG YLEEEGANKS SNTETFVAIR VIDNWRWAG VPFYLRTGKR LPTKCSEVVV
YFKTPELNLF KESWQDLPQN KLTIRLQPDE GVDIQVLNKV PGLDHHKHLQ ITKLDLSYSE TFNQTHLADA
YERLLEETMR GIQALFVRRD EVEEAWKWVDSITEAWAMDN DAPKPYQAGT WGPVASVAMI TRDGRSWNEF E.

Biological Activity

Specific activity > 70 units/mg obtained by measuring the increase of beta-NADPH in absorbance at 340 nm resulting from the reduction beta- 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.

Precautions

G6PD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.