ARG82161
Glucose Dehydrogenase Activity Assay Kit (Colorimetric)

Package: 100 tests
Store at: -20°C

Summary

Product Description	ARG82161 Glucose Dehydrogenase Activity Assay Kit (Colorimetric) can be used to measure Glucose Dehydrogenase activity in serum, plasma, tissue and culture media.
Tested Reactivity	Hu, Ms, Rat, All
Tested Application	FuncSt
Target Name	Glucose Dehydrogenase
Conjugation Note	Read at 565 nm
Sensitivity	0.5 U/L
Detection Range	0.5 - 200 U/L
Sample Type	serum, plasma, tissue and culture media
Sample Volume	20 µl
Alternate Names	G6PD1; G6PD; EC 1.1.1.49; Glucose-6-phosphate 1-dehydrogenase

Application Instructions

Application Note	Please note that this kit does not include a microplate.
Assay Time	15 min

Properties

Form	Liquid
Storage instruction	Store the kit at -20°C. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

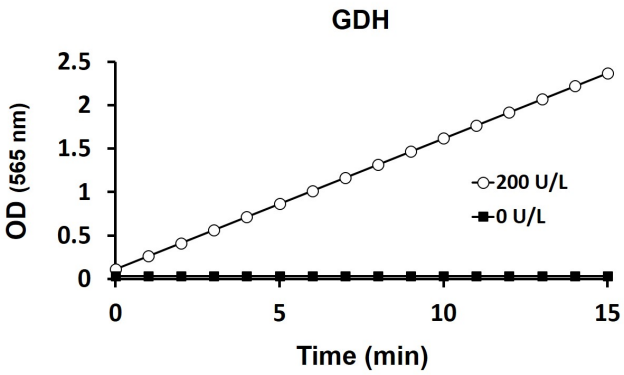
Gene Symbol	G6PD
Gene Full Name	glucose-6-phosphate dehydrogenase
Background	This gene encodes glucose-6-phosphate dehydrogenase. This protein is a cytosolic enzyme encoded by a housekeeping X-linked gene whose main function is to produce NADPH, a key electron donor in the defense against oxidizing agents and in reductive biosynthetic reactions. G6PD is remarkable for its genetic diversity. Many variants of G6PD, mostly produced from missense mutations, have been described with wide ranging levels of enzyme activity and associated clinical symptoms. G6PD deficiency may cause neonatal jaundice, acute hemolysis, or severe chronic non-spherocytic hemolytic anemia. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
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. [UniProt]

PTM

Acetylated by ELP3 at Lys-403; acetylation inhibits its homodimerization and enzyme activity. Deacetylated by SIRT2 at Lys-403; deacetylation stimulates its enzyme activity. [UniProt]

Images



ARG82161 Glucose Dehydrogenase Activity Assay Kit (Colorimetric) enzyme kinetics graph

Kinetics of 0 and 200 U/L Glucose Dehydrogenase reaction, using ARG82161 Glucose Dehydrogenase Activity Assay Kit (Colorimetric).