MUTASE (α-PHOSPHOGLUCOMUTASE) (microbial) (Lot 120604d)

Recombinant

E-PGM **11/20**

EC: 5.4.2.2

Synonyms: phosphoglucomutase (alpha-D-glucose-1,6-bisphosphate-dependent);
alpha-D-glucose 1,6-phosphomutase

CAS: 9001-81-4

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 59,200)
- Single major band on isoelectric focusing (pI ~ 5.7)

2. SPECIFIC ACTIVITY:

156 U/mg protein at pH 7.4 and 25°C;
317 U/mg protein at pH 7.4 and 37°C.

One Unit of α-phosphoglucomutase is defined as the amount of enzyme required to produce one µmole of NADPH from $NADP^+$ per minute under the following assay conditions:

Glycylglycine buffer, pH 7.4	70 mM
$MgCl_2$	7.0 mM
L-Cysteine	45 mM
α-D-Glucose 1-phosphate	5.2 mM
α-D-Glucose-1,6-bisphosphate	0.05 mM
$NADP^+$	0.7 mM
D-Glucose 6-phosphate dehydrogenase	8 U/mL

3. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 6.5-8.0 and 25°C-37°C.

pH Stability: 6.0-9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Stability: up to 40°C (> 90% control activity after 15 min)

4. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as a solution containing 50% glycerol plus 0.02% (w/v) sodium azide and should be stored below -10°C. For assay, this enzyme should be diluted in glycylglycine buffer (100 mM), pH 7.4 containing 0.5 mg/mL BSA.