



Certificate of Analysis

Product name: 6-PHOSPHO-D-GLUCONATE DEHYDROGENASE (EC 1.1.1.44)

Product code: # 6PGDH

Batch: 022.00123

Mfg Date: January 2024

Tests	Specifications	Results	Comment
Activity (U/ml)	> 150	169	Passed
Specific Activity (U/mg of proteins) ¹	> 30	31	Passed

Unit definition²

One Unit of 6-Phospho-D-Gluconate Dehydrogenase is defined as the amount of enzyme required to produce one μ mole of NADPH from NADP⁺ per minute in a coupled assay with Gluconate Kinase at 25°C under the following assay conditions:

TEA / HCl buffer pH 7.6	86 mM
ATP	7.5 mM
NADP ⁺	0.9 mM
MgCl ₂	8.6 mM
D-Gluconic acid	3.2 mM
Gluconate Kinase	6.0 U/ml

References

¹Determined as *Ref.*: Bradford M. M., *Analytical Biochemistry*, Vol. **72**: pp. 248-254 (1976).

²Izu et al., *FEBS Letters*, vol. **394**: pp. 14-16 (1996).

Storage and use conditions

The enzyme is supplied as an ammonium sulphate suspension and should be stored at +2/+8 °C. For assay, this enzyme should be diluted in 20 mM Tris/HCl buffer, pH 7.6 containing 5 mM MgCl₂. **Swirl to mix the enzyme suspension immediately prior to use.**

Exp. Date: January 2027

Quality Assurance

Rosaria Cassese

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