



## Certificate of Analysis

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

**Product code: # 6PGDH**

**Batch: 022.00222**

**Mfg Date:** February 2023

Tests	Specifications	Results	Comment
Activity (U/ml)	> 150	<b>182</b>	Passed
Specific Activity (U/mg of proteins) <sup>1</sup>	> 30	<b>37</b>	Passed

### Unit definition<sup>2</sup>

One Unit of 6-Phospho-D-Gluconate Dehydrogenase is defined as the amount of enzyme required to produce one  $\mu$ mole of NADPH from NADP<sup>+</sup> 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 <sup>+</sup>	0.9 mM
MgCl <sub>2</sub>	8.6 mM
D-Gluconic acid	3.2 mM
Gluconate Kinase	6.0 U/ml

### References

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

<sup>2</sup> Izu 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 MgCl<sub>2</sub>. **Swirl to mix the enzyme suspension immediately prior to use.**

**Exp. Date:** February 2026

Quality Assurance

Rosaria Cassese

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