Certificate of Analysis

Product name: ACETATE KINASE (EC 2.7.2.1)

Product code: # ACK

Batch: 002.00220

Test Date: September 2020

Tests	Specifications	Results	Comment
Activity (U/ml)	> 25000	**31800.6**	Passed
Specific Activity (U/mg of proteins)[1]	> 1500	**1505.7**	Passed

Unit definition [2]

One Unit of Acetate kinase is defined as the amount of enzyme required to produce one micromole of NAD^+ from NADH per minute in a coupled assay with Piruvate Kinase and L-Lactic Dehydrogenase at 25°C under the following assay conditions:

Tris/HCl buffer, pH 7.6	50 mM
Sodium acetate	303 mM
ATP	5.5 mM
Phosphoenolpyruvate	5.5 mM
NADH	0.35 mM
$MgCl_2$	12 mM
Pyruvate kinase	13 U/ml
L-Lactate dehydrogenase	13 U/ml

References

[1] Determined as *Ref.*: Bradford M. M., *Analytical Biochemistry*, Vol. **72**: pp. 248-254 (**1976**).
[2] Bergmeyer et al., *Methods of Enzymatic Analysis* **1**, 425-426 - Verlag Chemie-Academic Press, New York/London (**1974**).

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 100 mM Tris/HCl buffer, pH 7.6 containing 1 mg/ml BSA. **Swirl to mix the enzyme suspension immediately prior to use.**

Exp. Date: September 2023

Quality Assurance
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