



Certificate of Analysis

Product name: ACETYL-CoA SYNTHETASE (EC 6.2.1.1)

Product code: # ACAS

Batch: 003.00124

Mfg Date: January 2024

Tests	Specifications	Results	Comment
Activity (U/ml)	> 200	280	Passed
Specific Activity (U/mg of proteins) ¹	> 9	14	Passed

Unit definition²

One Unit of Acetyl-CoA Synthetase is defined as the amount of enzyme required to produce one μ mole of acetyl-CoA from acetate, ATP and CoA per minute in a coupled assay with Citrate Synthase and L-Malate Dehydrogenase at 37°C under the following assay conditions:

Tris/HCl buffer, pH 7.6	128 mM
MgCl ₂	4.0 mM
L-Malic acid	9.6 mM
NAD ⁺	1.1 mM
ATP	2.7 mM
Coenzyme A	0.28 mM
Sodium acetate	32 mM
BSA	0.32 mg/ml
Citrate Synthase	3.6 U/ml
L-Malate Dehydrogenase	25 U/ml

References

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

² Londesborough J.C., Yuan S.L. & Webster, L.T. Jr., *Biochem. J.*, vol. **133**: pp. 23-36 (1973).

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

CPC BIOTECH S.r.l.

Sede Legale e Amministrativa/Registered and account office:

Via L. Galvani, 1

20875 Burago di Molgora (MB) – Italia

Tel. +39 039 6898029

Fax. +39 039 6899774

Partita IVA 00751490962

Codice Fiscale 03447450150

R.E.A.1074257

Registro Imprese di Monza e Brianza

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