



Citrate Synthase from *E. coli* (Lot 30701)

Recombinant

11/03

Cat. No. E-CITEC

EC 4.1.3.7

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW = 50,178)

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES

16.5 U/mg protein at pH 8.0 and 25°C.

One Unit of citrate synthase enzyme activity is the amount of enzyme required to produce one μ mole of CoA from acetyl-CoA under the following assay conditions:

Tris-HCl buffer	96.5 mM
Oxaloacetic acid	0.16 mM
Acetyl-CoA	0.2 mM
BSA	100 μ g/ml

3. OTHER ACTIVITIES (as a percentage of citrate synthase)

Enzyme measured	Substrate	Activity, %
Isocitrate Dehydrogenase		< 0.03
NADH Oxidase	NADH	n.d.
Malate Dehydrogenase	Oxaloacetate	0.18

All activities were measured at 340 nm in 96.5 mM Tris-HCl buffer (pH 8.0) containing 100 μ g/ml BSA, at 25°C. n.d. = not detected.

3. PHYSICOCHEMICAL PROPERTIES

Recommended conditions of use are at pH 8.0 and up to 25°C.

4. STORAGE AND USE CONDITIONS/RECOMMENDATIONS

The enzyme is supplied as an ammonium sulphate suspension and should be stored at 4°C. If required, dilution of the enzyme should be performed using 100 mM imidazole buffer, pH 8.0.

Figure 1. SDS-PAGE analysis of citrate synthase (*E. coli*)

Electrophoresis was performed using a 10% acrylamide gel. Lane 1, high molecular weight markers (Sigma cat. no. M-3788); lane 2, 5 μ g citrate synthase; lane 3, low molecular weight markers (Sigma cat. no. M-3918).

