



CITRATE SYNTHASE from *E. coli* (Lot 150801a)

Recombinant

E-CITEC

09/15

(EC 4.1.3.7) Modified to 2.3.3.1 in 2002 acetyl-CoA:oxaloacetate C-acetyltransferase [thioester-hydrolysing, (pro-S)-carboxymethyl forming]

PROPERTIES:

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 50,178)
- Single major band on isoelectric focusing (pI ~ 6.5)

2. SPECIFIC ACTIVITY:

14 U/mg protein at pH 8.0 and 25°C.

One Unit of citrate synthase is defined as the amount of enzyme required to produce one μ mole of citric acid from oxaloacetic acid and acetyl-CoA measured at 232 nm under the following assay conditions:

Tris.HCl buffer, pH 8.0	95 mM
Oxaloacetic acid	0.16 mM
Acetyl-CoA	0.2 mM

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

Enzyme Measured	Substrate	Activity, %
Citrate synthase	oxaloacetic acid	100
Aconitase	citric acid	< 0.0001
Isocitrate dehydrogenase	D-isocitric acid	< 0.0001
L-Malate dehydrogenase	oxaloacetic acid	< 0.0001
NADH oxidase	NADH	~ 0.0016

4. PHYSICOCHEMICAL PROPERTIES:

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

5. STORAGE AND USE CONDITIONS/RECOMMENDATIONS:

The enzyme is supplied as an ammonium sulphate suspension and should be stored at 4°C. For assay, this enzyme should be diluted in 100 mM imidazole buffer, pH 8.0.
Swirl to mix the enzyme suspension immediately prior to use.