



## CITRATE SYNTHASE from *E. coli* (Lot 161005a)

### Recombinant

### E-CITEC

03/19

(EC 2.3.3.1) Modified from 4.1.3.7 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  $\mu$ 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 50% (v/v) glycerol solution and should be stored below -10°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.**