SUCCINYL-CoA SYNTHETASE from a prokaryote (Lot 80501b)

Recombinant

E-SCOAS **02/14**

(EC 6.2.1.5) Succinate:CoA ligase (ADP-forming)

PROPERTIES:

1. ELECTROPHORETIC PURITY:

- Two bands (α and β subunits) on SDS-gel electrophoresis (MW ~ 30,843 and ~ 41,393)
- One major bands on isoelectric focusing (pI ~ 5.9)

2. SPECIFIC ACTIVITY:

8.7 U/mg protein at pH 8.4 and 25°C.

One Unit of succinyl-CoA synthetase is defined as the amount of enzyme required to produce one µmole of NAD^+ from NADH under the following assay conditions:

Glycylglycine buffer, pH 8.4	34 mM
ATP	1.2 mM
Coenzyme A	0.89 mM
$MgCl_2$	3.4 mM
NADH	0.97 mM
PEP	2.6 mM
Succinic acid	5.8 mM
L-Lactate dehydrogenase	3.4 U/mL
Pyruvate kinase	4.1 U/mL

3. OTHER ACTIVITIES (as a percentage of succinyl-CoA synthetase activity):

Enzyme Measured	Substrate	Activity, %
Succinyl-CoA synthetase	succinic acid	100
ATPase	ATP	< 0.002
NADH oxidase	NADH	< 0.001

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 8.4 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 glycylglycine buffer, pH 8.4 containing 10 mM $MgCl_2$. **Swirl to mix the enzyme suspension immediately prior to use.**