



## ADENYLATE KINASE from a prokaryote (Lot 81001d)

**Recombinant**

**E-AMPK**

03/21

(EC 2.7.4.3) ATP:AMP phosphotransferase

**PROPERTIES**

**1. ELECTROPHORETIC PURITY:**

- Single band on SDS-gel electrophoresis (MW ~ 25,749)
- Single major band on isoelectric focusing (pI ~ 6.4)

**2. SPECIFIC ACTIVITY:**

**874 U/mg protein at pH 7.6 and 25°C.**

**One Unit** of adenylate kinase is the amount of enzyme required to produce one μmole of NAD<sup>+</sup> from NADH under the following assay conditions:

TEA buffer, pH 7.6	73 mM
PEP	0.78 mM
MgCl <sub>2</sub>	7.3 mM
ATP	5.3 mM
AMP	0.53 mM
NADH	0.26 mM
Pyruvate kinase	4.4 U/mL
L-Lactate dehydrogenase	4.0 U/mL

**3. OTHER ACTIVITIES (as a percentage of adenylate kinase activity):**

Enzyme Measured	Substrate	Activity, %
Adenylate kinase	AMP	100
ATPase	ATP	<0.0001
Lactate dehydrogenase	pyuvic acid	<0.001
NADH oxidase	NADH	<0.0001
3-Phosphoglycerate kinase	glycerate 3-phosphate	<0.0001
Pyruvate kinase	PEP	<0.0001

**4. PHYSICOCHEMICAL PROPERTIES:**

Recommended conditions of use are at pH 7.6 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 TEA buffer, pH 7.6 containing 1 mg/mL BSA. **Swirl to mix the enzyme suspension immediately prior to use.**