DIAPHORASE from *E. coli* (Lot 130203a)

Recombinant

E-DIAEC **06/15**

(EC 1.8.1.4) protein-N6-(dihydrolipoyl)lysine:NAD+ oxidoreductase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 51,700)
- One major bands on isoelectric focusing (pI ~ 6.0)

2. SPECIFIC ACTIVITY:

12 U/mg protein at pH 9.0 and 25°C.

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

Tris.HCl buffer, pH 9.0	32.3 mM
Triton X-100	0.65% (v/v)
BSA	0.16 mg/mL
Indonotrotetrazolium chloride	0.5 mM
NADH	0.46 mM

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

Enzyme Measured	Substrate	Activity, %
Diaphorase	NADH	100
NADH oxidase	NADH	~ 0.1

4. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 9.0 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 0.5 mM FAD containing 0.5 mg/mL BSA. **Swirl to mix the enzyme suspension immediately prior to use.**