myo-INOSITOL DEHYDROGENASE from *B. subtilis* (Lot 140401a)

Recombinant

E-INDHBS **08/18**

(EC 1.1.1.18) inositol 2-dehydrogenase; myo-inositol:NAD+ 2-oxidoreductase

CAS: 9028-25-5

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 39,000)
- One major band on isoelectric focusing (pI ~ 5.3)

2. SPECIFIC ACTIVITY:

80 U/mg protein at pH 9.6 and 25°C

One Unit of myo-inositol dehydrogenase activity is defined as the amount of enzyme required to produce one µmole of *scyllo*-inosose and NADH from myo-inositol (123 mM) and NAD^+ per minute in glycylglycine buffer (492 mM), pH 9.6 at 25°C.

3. SPECIFICITY:

Catalyses the reaction:

myo-inositol + NAD^+ = 2,4,6/3,5-pentahydroxycyclohexanone + NADH + H^+

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
myo-Inositol	100
β-D-glucose	~ 23.0
β-D-xylose	~ 23.6

Action on these substrates was determined at a final substrate concentration of 123 mM in glycylglycine buffer (492 mM), pH 9.6 at 25°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 9.6 and up to 25°C

6. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in glycylglycine buffer (492 mM), pH 9.6. **Swirl to mix the enzyme immediately prior to use.**