

**TECHNICAL DATA SHEET****Catalog # MSP30****Pyruvate Dehydrogenase (PDH) Enzyme Activity Dipstick Assay Kit**

Rev.4

LOT #:

APPLICATIONS: Quantitative analysis of pyruvate dehydrogenase (PDH) activity

SPECIES CROSS-REACTIVITY: human, bovine, mouse, rat, pig

KIT COMPONENTS:

| Item               | MSP30-30 | MSP30-90 |
|--------------------|----------|----------|
| Dipsticks          | 30       | 90       |
| Sample buffer      | 30 mL    | 90 mL    |
| Blocking solution  | 2 mL     | 6 mL     |
| Detergent          | 1 mL     | 3 mL     |
| 20X Reagent Mix    | 0.6 mL   | 1.8 mL   |
| Diaphorase         | 0.4 mL   | 1.2 mL   |
| NBT                | 40 µL    | 120 µL   |
| 96-well microplate | 2        | 6        |

STORAGE CONDITIONS:

- Store dipsticks at room temperature out of direct sunlight in their provided storage containers.
- Store Sample buffer at 4°C.
- Store Blocking solution at -20°C.
- Store 20X Reagent Mix, Detergent, and Diaphorase at -80°C; these may be aliquoted upon receipt to prevent freeze/thaw cycles.
- Store NBT in the dark at -80°C.

COUNTRY OF ORIGIN:

USA

**BACKGROUND:**

The pyruvate dehydrogenase complex (PDH) is at the center of aerobic carbohydrate metabolism. It is localized in the matrix space of mitochondria where it catalyzes the irreversible oxidative decarboxylation of pyruvate entering the organelle to produce acetyl-CoA, NADH and CO<sub>2</sub>.

PDH is a complex of three different enzymes that channel substrate and product. These are pyruvate dehydrogenase (E1), dihydrolipoamide transacetylase (E2) and dihydrolipoamide dehydrogenase (E3).

PDH deficiencies, diabetes, starvation, sepsis, and possibly Alzheimer's disease have been linked to altered PDH function.

**Note: This product is for research purposes only. It is not to be used in humans or for diagnostic purposes.**

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