

TECHNICAL DATA SHEET**Catalog # MS131****Complex I Human Protein Quantity Dipstick Assay Kit**

Rev.3

LOT #:

APPLICATIONS: Quantitative analysis of Complex I (NADH ubiquinone oxidoreductase)

SPECIES CROSS-REACTIVITY: human, bovine

KIT COMPONENTS:

Item	MS131-30	MS131-90
Dipsticks	30	90
Gold-conjugated antibody (dried in microplate wells)	30 wells	90 wells
Buffer A (Extraction buffer)	15 mL	45 mL
Buffer B (Blocking solution)	1 mL	3 mL
Buffer C (Wash buffer)	1 mL	3 mL

STORAGE CONDITIONS:

- Store dipsticks at room temperature out of direct sunlight in their provided storage containers.
- Store microplate with gold-conjugated antibody in foil pouch with desiccant packs at room temperature.
- Store Buffers A, B, and C at 4°C or at -20°C for long-term storage.

COUNTRY OF ORIGIN:

USA

BACKGROUND:

Complex I, or NADH ubiquinone oxidoreductase, is a large protein complex of 950,000 Da molecular weight made up by 45 to 46 different subunits. A total of seven of the subunits of the complex are encoded by mitochondrial DNA, while the remainder subunits are nuclear encoded, which are translated in the cytosol and translocated into the organelle for assembly at the inner membrane.

The enzyme complex catalyses electron entry from NADH via a flavin (FMN) and several non-heme iron centers. Complex I is sensitive to a wide range of inhibitors, many of which are pesticides or other common environmental toxins, such as rotenone. Complex I dysfunction is a common cause of genetic OXPHOS defects. Altered functioning of this complex is also thought to contribute to several neurological disorders including Parkinson's disease and schizophrenia. Also, there is evidence of Complex I involvement in diabetes.

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

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