

**TECHNICAL DATA SHEET****Catalog # MS241****Complex II Enzyme Activity Microplate Assay Kit**

Rev.2

LOT #:

APPLICATIONS: Complex II activity assay

SPECIES CROSS-REACTIVITY: Bovine, human, mouse, rat. Other species not tested.

KIT COMPONENTS:

Item	MS241
20X Buffer	15 mL
10X Detergent	2 x 1 mL
10X Blocking Solution	5 mL
Complex II Activity Buffer	25 mL
DCPIP	250 µL
Succinate	500 µL
Ubiquinone 2	60 µL
Lipid Mix	6 mL
Pre-coated 96-well microplate (12 strips)	1

STORAGE CONDITIONS: Store at -80°C:  
Succinate, Ubiquinone 2 and DCPIP.Store at -20°C:  
Lipid Mix

All other components store at 4°C.

COUNTRY OF ORIGIN: USA

**BACKGROUND:**

Complex II, also known as succinate-coenzyme Q reductase (SDH, EC 1.3.5.1), is one of the five complexes involved in oxidative phosphorylation in the inner mitochondrial membrane and also a member of the tricarboxylic acid cycle (TCA). It catalyzes electron transfer from succinate to the electron carrier, ubiquinone, but unlike the other four complexes it is not a proton pump. In the cell the product ubiquinol is utilized by complex III in the respiratory chain and fumarate is necessary to maintain the TCA cycle.

The Complex II Enzyme Activity Microplate Assay (MS241) is designed for determining the Complex II activity in a sample. Each of the 96 wells in the kit has been coated with an anti-Complex II monoclonal antibody (mAb) which purifies the enzyme from a complex sample such as mitochondria, tissue homogenate or cell lysate. After this in-well purification the production of ubiquinol by the enzyme is coupled to the reduction of the dye DCPIP (2,6-dichlorophenolindophenol) and a decrease in its absorbance at 600 nm which in turn recycles the substrate ubiquinone.

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

WARRANTY – MitoSciences Inc warrants that products will perform as indicated in the published Technical Data Sheet for 1 month from date of purchase when stored according to specifications and when used consistent with recommended protocols. If you experience results which materially differ from those described, send evidence of the non-performing product for replacement of the original product purchased or a credit toward any other of the company's products or services.