

R&D Project

R&D Division



BIOLAB 2: PORTABLE LAB KIT FOR MEASURING AN INDIVIDUAL'S REDOX STATUS

POLYTECH SA is pleased to announce its new product, *Biolab 2*, a portable laboratory kit which allows the user to access an individual's **redox status**, designed and produced in Greece.

The set offers all required equipment - instruments to conduct the above tests and a specially developed application which guides the user in every step of the testing procedure.

PRODUCT

Consumables

To perform the tests, a user will need the following consumables:

- 1 Phosphate buffer, 150 ml
- 2 Pipette tips, 2 sets of 25 pcs
- 3 DTNB
- 4 Eppendorf tubes, 30 pieces



SCIENCE FACTS

Free radicals are highly unstable molecules that are naturally formed when your body converts food into energy as well as various exogenous sources, such as cigarette smoke, air pollution, and sunlight. When in excess, free radicals can be harmful, causing **“oxidative stress”** a process that leads to **cell damage**. Oxidative stress has been associated with a variety of diseases including cancer, cardiovascular diseases, diabetes and neurodegenerative diseases.



Antioxidants are man-made or natural substances that **prevent** or **delay** some types of **cell damages**. Antioxidant molecules have been shown to **counteract oxidative stress** in laboratory experiments (for example, in cells or animal studies). The most important endogenous antioxidant is **Glutathione**. The **Redox Status** of an individual denotes the current balance between oxidant and antioxidant molecules and provides information on whether a nutritional intervention with antioxidants is required or not.

FEATURES

Biolab 2 was created in order to offer to the scientific lab and the market a **simple**, specific **lab tool**, at **low cost**, which can easily and practically **estimate the redox status** of an individual by measuring the **Glutathione levels**. It is a test set based on a simplified method using the **DTNB** technique and produces very high accuracy results.

Biolab 2 technology, in combination with its low cost, portability and simplicity, aims to cover the need of internal (not outsourced) measurement of the redox status of an individual. This result, when combined with the ones from Biolab 1.0, will provide the opportunity to determine the best course of action in terms of diet to ensure the improvement of the redox status.



The software application of **BioLab V2.0** has been developed jointly by **Polytech SA** and the Professor of Biochemistry **Dr. D.KOURETAS-Ph.D.**