QuantiChrom™ Arginase Assay Kit

ARGINASE (L-arginine ureohydrolase EC 3.5.3.1) is present in mammals and plants. In humans, arginase is expressed predominantly in the liver, and to lesser degrees in breast, kidney, testes, salivary glands, epidermis and erythrocytes. Arginase catalyzes the conversion of arginine to ornithine and urea, completing the last step in the urea cycle. Arginase activity is a key diagnostic indicator. Increased levels of arginase activity in blood have been associated with liver damage [1]. Hyperargininemia due to arginase deficiency is an inherited autosomal recessive disease [2].

Simple, direct and automation-ready procedures for measuring arginase activity in biological samples are highly desirable in Research and Drug Discovery. BioAssay Systems' arginase assay kit provides a sensitive and convenient method for arginase activity determination. The method utilizes a chromogen that forms a colored complex specifically with urea produced in the arginase reaction. The intensity of the color, measured at 520 nm, is directly proportional to the arginase activity in the sample.

KEY FEATURES

Sensitive and accurate. Detection limit: 1 unit per liter arginase activity in 96-well assay format.

Simple and high-throughput. The procedure involves incubation of the provided substrate with the sample in a microplate, addition of the coloring reagent and incubation for 15 min. Can be readily automated as a high-throughput assay for thousands of samples per day.

APPLICATIONS:

Direct Assays: arginase activity in enzyme preparations, serum, plasma, tissue culture etc;

Drug Discovery/Pharmacology: effects of drugs on arginase activity.

PRODUCT INFORMATION:

QuantiChrom™ Arginase Assay Kit	DARG-200

Each kit is sufficient for 200 assays in 96-well plate. Kit includes:

- 1 x 2 mL Arginase Buffer (pH 9.5)
- 1 x 1 mL Mn Solution
- 1 x 25 mL Reagent A
- 1 x 25 mL Reagent B
- 1 x 1 mL Urea Standard

REFERENCES:

[1]. Ugarte G, Pino M E, Peirano P, Marusic E. (1960) Serum arginase activity in subjects with hepatocellular damage. J Lab Clin Med. 55:522-9.

[2]. Crombez EA, Cederbaum SD (2005) Hyperargininemia due to liver arginase deficiency. Mol Genet Metab. 84(3): 243-51.

[3]. Mellerup B (1967) Colorimetric method for rapid determination of serum arginase. Clin Chem. 13(10): 900-8.