CREATIVE BIOMART®
Assay Kit

?-Hydroxybutyrate (Ketone Body) Fluorometric Assay Kit

Product Information

Cat.No. Kit-2041

Size

96 wells

Description

β-Hydroxybutyrate (β-HB; 3-hydroxybutyric acid) is produced in the liver, mainly from the oxidation of fatty acids, and exported to peripheral tissues for use as an energy source. Measurement of β-HB can provide a reliable index of the level of normal ketosis as well as detect pathological ketoacidosis, including the assessment of the severity of diabetic coma and monitor insulin requirements in diabetic patients. Theβ-HB (Ketone Body) Fluorometric Assay Kit provides a simple, reproducible, and sensitive tool for assaying β-HB from plasma, serum, urine, tissue homogenates, and cell culture samples. The method for β-HB determination is based upon the oxidation of D-3-Hydroxybutyrate to acetoacetate by the enzyme 3-hydroxybutyrate dehydrogenase. Concomitant with this oxidation, the cofactor NAD+ is reduced to NADH. NADH reacts with the fluorometric developer to yield a highly fluorescent product which can be analyzed with an excitation wavelength of 530-540 nm and an emission wavelength of 585-595 nm. The fluorescence is directly proportional to the β-HB concentration.

Storage

-20°C

Kit Components

β-HB Assay Buffer: 1 vial β-Hydroxybutyrate Standard: 2 vials β-HB Fluorometric Cofactors: 2 vials β-Hydroxybutyrate Dehydrogenase: 2 vials β-HB Developing Enzyme: 2 vials Fluorometric Developer Reagent: 2 vials/60 µg Potassium Carbonate Assay Reagent: 1 vial/5 ml MPA Assay Reagent: 1 vial/2 g 96-Well Solid Plate (black): 1 plate 96-Well Cover Sheet: 1 cover

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