CREATIVE BIOMART®
Assay Kit

NADP/NADPH Assay Kit

Product Information

Cat.No. Kit-0616

Product Overview

Detection and Quantification of NADP/NADPH Content.

Description

NADP (Nicotinamide adenine dinucleotide phosphate) is a coenzyme composed of ribosylnicotinamide 5-phosphate (NMN) coupled by pyrophosphate linkage to the 5-phosphate adenosine 2,5-biphosphate. It serves as an electron carrier in a number of reactions, being alternately oxidised (NADP+) and reduced (NADPH). The oxidative phase of the pentose phosphate pathway is the major source of NADPH in cells, producing approxiamtely 60% of the NADPH required. NADPH provides the reducing equivalents for biosynthetic reactions and the oxidation-reduction involved in protecting against the toxicity of ROS, allowing the regeneration of GSH. NADPH is also used for anabolic pathways, such as lipid synthesis, cholesterol synthesis and fatty acid chain elongation. NADP/NADPH Assay Kit is based on a glucose dehydrogenase cycling reaction, in which the formed NADPH reduces a formazan (MTT) reagent. The intensity of the reduced product color, measured at 570 nm, is proportionate to the NADP+/NADPH concentration in the sample.

Applications

Functional Assay

Storage

Shipped and store at 4°C for 6 months.

Kit Components

Component-Volume-Storage1. 96-Well Microplate; 2. Extract I: 30 ml x 1, 4°C; 3. Extract II: 30 ml x 1, 4°C; 4. Reagent I: 10 ml x 1, 4°C; 5. Reagent II: Powder x 1, -20°C; 6. Reagent III: Powder x 1, -20°C; 7. Reagent IV: Powder x 1, 4°C; 8. Reagent V: 1.2 ml x 3, 4°C; 9. Reagent VI: 30 ml x 1, 4°C; 10. Reagent VII: 25 ml x 2, 4°C; 11. Technical Manual: 1 ManualNote: Reagent II: add 3 ml distilled water to dissolve before use, mix, stored at -20°C. Reagent III: add 3 ml distilled water to dissolve before use,

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mix, stored at 4°C. Reagent IV: add 3 ml distilled water to dissolve before use, mix, stored at 4°C.

Detection method Colorimetric

Compatible Sample Types

Urine; Serum; Plasma; Other biological fluids; Tissue Extracts; Cell Lysate

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