



NADPH Regenerating Kit

Product Information

Cat.No.

Kit-2089

Product Overview

NADPH Regenerating Kit provides two ready-to-use solutions to regenerate NADPH by a simple mixing. This kit can be used for all NADPH-requiring oxidase assays (cDNA-expressed enzymes and liver fractions). About 300-500 enzyme assays can be performed using this kit. The total number of assays that can be performed depends on one's experimental design.

Size

1 kit

Description

NADPH provides the reducing equivalents for biosynthetic reactions and for oxidation-reduction involved in protection against the toxicity of ROS (reactive oxygen species). NADPH is also used for anabolic pathways, such as lipid synthesis, cholesterol synthesis and fatty acid chain elongation. It is a necessary cofactor in many xenobiotic metabolism reactions. In chloroplasts, NADP is reduced to NADPH by ferredoxin-NADP reductase in the last step of the electron chain in photosynthesis reactions. The NADPH produced is used as reducing power for the biosynthetic reactions in the Calvin cycle of photosynthesis. Many oxidoreductases and all ligases use NADPH as coenzyme. NADPH is required for the measurement of oxidase activity catalyzed by P450s, FMOs, NADPH-P450 reductase, and many other oxidase enzymes.

Storage

Keep in freezer and protect from light

Kit Components

Component A: Assay Buffer I: 1 bottle (25 mL) Component B: Assay Buffer II: 1 bottle (25 mL) Component C: 500X Glucose-6-phosphate dehydrogenase (400 units/mL): 1 vial (100 uL)
