CREATIVE BIOMART®
Assay Kit

MESG Phosphate Assay Kit

Product Information

Cat.No. Kit-2092

Product Overview

The MESG Phosphate Assay Kit has been developed for measuring the activity of any Pi-generating enzyme using MESG reagent. The measurement of Pi is based on absorbance change of MESG by phosphate. In the presence of inorganic phosphate, MESG is converted to 2-amino-6-mercapto-7-methlpurine by purine nucleoside phosphorylase with absorption wavelength shift to red. This feature has been used to develop our convenient MESG phosphate assay kit, an alternative to hazardous radioactive methods. The MESG substrate gives an absorbance increase at 360 nm on phosphorylysis at pH 6.5-8.5. The assay is shown to quantitate phosphate at the final concentration as low as 0.2 μM. The kit has been used for monitoring ATPase activities. It can also be used for monitoring phosphatase activities.

Size

1 kit

Description

Phosphate is involved in many biological processes. For example, phosphatases, ATPases and several other enzymes catalyze biochemical reactions in which inorganic phosphate (Pi) is released from a phosphoester substrate. The detection of many phosphoester–metabolizing enzymes is difficult because suitable substrates are not available. It is usually necessary to determine inorganic phosphate release using tedious colorimetric assays or radioisotope-based methods.

Storage

Keep in freezer. Avoid exposure to ligh.

Kit Components

Component A: Assay Buffer: 1 Bottle (10 mL)Component B: MESG Substrate: 1 vial (lyophilized powder)Component C: Purine Nucleoside Phosphorylase (PNP): 1 vial (lyophilized powder)Component D: 1 mM KH2PO4: 1 vial (1 mL)

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