

# ATP Sulfurylase



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M0394S 015140515051

## M0394S



10 units      300 U/ml      Lot: 0151405

RECOMBINANT    Store at  $-20^{\circ}\text{C}$     Exp: 5/15

**Description:** ATP Sulfurylase catalyzes the activation of sulfate by transferring sulfate to the adenine monophosphate moiety of ATP to form adenosine 5'-phosphosulfate (APS) and pyrophosphate (PPi). The reaction is reversible: ATP is formed from APS and PPi.

**Source:** An *E.coli* strain carrying a plasmid expressing the *S. cerevisiae* gene MET3.

Supplied in: 10 mM Tris-HCl (pH 7.5), 50 mM NaCl, 0.1 mM EDTA, 0.1 mM DTT and 50% glycerol.

**Unit Definition:** One unit is defined as the amount of enzyme that catalyzes the conversion of 1  $\mu\text{mol}$  of APS and PPi to ATP in one minute at  $30^{\circ}\text{C}$  in a total reaction volume of 40  $\mu\text{l}$ .

**Unit Assay Conditions:** 115 mM Tris-HCl (pH 8.0), 0.58 mM  $\beta$ -NADP, 2.4 mM Mg acetate, 34 mM D-glucose, 0.3 mM adenosine 5'-phosphosulfate, 3.4 mM pyrophosphate, 0.75 units/ml hexokinase and 0.5 units/ml glucose 6-phosphate dehydrogenase.

### Quality Controls Assays

**Phosphatase Contamination:** After incubation of 1.5 units of ATP Sulfurylase with 0.05  $\mu\text{mol}$  p-nitrophenol phosphate for 20 hours at  $37^{\circ}\text{C}$ , no phosphatase activity could be detected by spectrophotometric analysis.

**Nuclease Contamination:** Incubation of 1.5 units of ATP Sulfurylase for 20 hours in the recommended assay buffer with 2-log DNA Ladder revealed no detectable endonuclease activity as determined by agarose gel electrophoresis.

CERTIFICATE OF ANALYSIS

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