New England Biolabs
Product Specification

Product Name: ATP Sulfurylase
Catalog #: M0394S/L
Concentration: 300 units/ml
Unit Definition: One unit is defined as the amount of enzyme that catalyzes the conversion of 1 µmol of APS and PPi to ATP in one minute at 30°C in a total reaction volume of 40 µl.
Shelf Life: 12 months
Storage Temp: -20°C
Storage Conditions: 10 mM Tris-HCl, 50 mM NaCl, 0.1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 7.5 @ 25°C)
Specification Version: PS-M0394S/L v1.0
Effective Date: 10 Aug 2018

Assay Name/Specification (minimum release criteria)

Non-Specific DNase Activity - A 50 µl reaction in CutSmart® Buffer containing 1 µg of 1 kb Plus DNA Ladder and a minimum of 1.5 units of ATP Sulfurylase incubated for 20 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Phosphatase Activity (pNPP) - A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl₂ containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 1.5 units of ATP Sulfurylase incubated for 20 hours at 37°C yields <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.

Protein Purity Assay (SDS-PAGE) - ATP Sulfurylase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.