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: 100 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0394S/L v2.0
Effective Date: 11 Sep 2018

<table>
<thead>
<tr>
<th>Assay Name/Specification (minimum release criteria)</th>
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<tbody>
<tr>
<td><strong>Non-Specific DNase Activity</strong> - 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.</td>
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<td><strong>Phosphatase Activity (pNPP)</strong> - 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 &lt;0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</td>
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<td><strong>Protein Purity Assay (SDS-PAGE)</strong> - ATP Sulfurylase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</td>
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Derek Robinson
Director of Quality Control

Date 11 Sep 2018