

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>NudC Pyrophosphatase</i>
<i>Catalog #:</i>	<i>M0607S</i>
<i>Concentration:</i>	<i>10 <math>\mu</math>M</i>
<i>Unit Definition:</i>	<i>One <math>\mu</math>M of NudC Pyrophosphatase can hydrolyze <math>\geq 200 \mu</math>M of NAD<sup>+</sup> into NMN<sup>+</sup> and AMP in 30 minutes at 37°C.</i>
<i>Shelf Life:</i>	<i>12 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, (pH 7.4 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0607S v1.0</i>
<i>Effective Date:</i>	<i>26 Nov 2019</i>

### Assay Name/Specification (minimum release criteria)

**Endonuclease Activity (Nicking)** - A 50  $\mu$ l reaction in NEBuffer 3.1 containing 1  $\mu$ g of supercoiled PhiX174 DNA and a minimum of 1  $\mu$ M of NudC Pyrophosphatase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

**Protein Purity Assay (SDS-PAGE)** - NudC Pyrophosphatase is  $\geq 95\%$  pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

**RNase Activity (Extended Digestion)** - A 10  $\mu$ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1  $\mu$ l of NudC Pyrophosphatase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.



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