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# New England Biolabs
# Product Specification

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|---|---|
| *Product Name:* | *cAMP-dependent Protein Kinase (PKA), catalytic subunit* |
| *Catalog #:* | *P6000S/L* |
| *Concentration:* | *2,500,000 units/ml* |
| *Unit Definition:* | *One unit is defined as the amount of PKA catalytic subunit required to catalyze the transfer of 1 pmol of phosphate to Kemptide, LRRASLG (100 µM) in 1 minute at 30°C in a total reaction volume of 25 µL.* |
| *Shelf Life:* | *12 months* |
| *Storage Temp:* | *-20°C* |
| *Storage Conditions:* | *50 mM NaCl , 20 mM Tris-HCl , 2 mM DTT , 1 mM EDTA , 50 % Glycerol, (pH 7.5 @ 25°C)* |
| *Specification Version:* | *PS-P6000S/L v2.0* |
| *Effective Date:* | *04 Jun 2024* |

| **Assay Name/Specification (minimum release criteria)** |
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| **Phosphatase Activity (pNPP)** - A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM $MgCl_2$ containing 2.5 mM *p*-Nitrophenyl Phosphate (pNPP) and a minimum of 20,000 units of cAMP-dependent Protein Kinase (PKA), catalytic subunit incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis. |
| **Protease Activity (SDS-PAGE)** - A 20 µl reaction in 1X NEBuffer for Protein Kinases containing 24 µg of a standard mixture of proteins and a minimum of 20,000 units of cAMP-dependent Protein Kinase (PKA), catalytic subunit incubated for 2 hours at 30°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection. |



Date 04 Jun 2024

Lauren Brown
Quality Approver