New England Biolabs
Product Specification

**Product Name:** Glycogen Synthase Kinase 3 (GSK-3)

**Catalog #:** P6040S/L

**Concentration:** 500,000 units/ml

**Unit Definition:** One unit is defined as the amount of GSK-3 required to catalyze the transfer of 1 pmol of phosphate to CREB Phosphopeptide, KRREILRRPpSYR (400 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, 5 mM DTT, 1 mM EDTA, 50 % Glycerol, 0.03 % Brij® 35, (pH 7.5 @ 25°C)

**Specification Version:** PS-P6040S/L v1.0

**Effective Date:** 11 Nov 2015

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

**Phosphatase Activity (pNPP)** - A 220 µl reaction in NEBuffer for Protein Kinases containing 50 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 1,000 units Glycogen Synthase Kinase 3 (GSK-3) incubated for 2 hours at 30°C yields no detectable 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 1,000 units of Glycogen Synthase Kinase 3 (GSK-3) 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.

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Derek Robinson
Director of Quality Control

Date 11 Nov 2015