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## New England Biolabs Certificate of Analysis

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, KRREILSRRPpSYR (400 $\mu$ M), in 1 minute at 30°C in a total reaction volume of 25 $\mu$ l.
Lot #:	0291608
Assay Date:	08/2016
Expiration Date:	08/2017
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:	19 Feb 2016

Assay Name/Specification (minimum release criteria)	Lot #0291608
<b>Phosphatase Activity (pNPP)</b> - A 220 µl reaction in NEBuffer for Protein Kinases containing 50 mM <i>p</i> - 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.	Pass
<b>Protease Activity (SDS-PAGE)</b> - A 20 $\mu$ l reaction in 1X NEBuffer for Protein Kinases containing 24 $\mu$ g 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.	Pass

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Authorized by Derek Robinson 19 Feb 2016



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Inspected by Alicia Bielik 31 Aug 2016