

Kanamycin kinase type II/NEO protein, *Klebsiella pneumoniae* (Tag Free)

Cat. No.:	HY-P70228A
Synonyms:	rKIAminoglycoside 3'-phosphotransferase; Aminoglycoside 3'-phosphotransferase; APH(3')-II; APH(3')II; Kanamycin kinase type II; Neomycin-kanamycin phosphotransferase type II; neo
Species:	Others
Source:	<i>E. coli</i>
Accession:	P00552 (M1-F264)
Gene ID:	59690385
Molecular Weight:	approximately 29.68 kDa

PROPERTIES

AA Sequence	<pre> M I E Q D G L H A G S P A A W V E R L F G Y D W A Q Q T I G C S D A A V F R L S A Q G R P V L F V K T D L S G A L N E L Q D E A A R L S W L A T T G V P C A A V L D V V T E A G R D W L L L G E V P G Q D L L S S H L A P A E K V S I M A D A M R R L H T L D P A T C P F D H Q A K H R I E R A R T R M E A G L V D Q D D L D E E H Q G L A P A E L F A R L K A R M P D G E D L V V T H G D A C L P N I M V E N G R F S G F I D C G R L G V A D R Y Q D I A L A T R D I A E E L G G E W A D R F L V L Y G I A A P D S Q R I A F Y R L L D E F F </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris, 200 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The Kanamycin kinase type II/NEO protein confers resistance to a spectrum of aminoglycoside antibiotics, including kanamycin, neomycin, paromomycin, ribostamycin, butirosin, and gentamicin B. Its role involves mitigating the impact of these antibiotics, allowing the organism to withstand their inhibitory effects. This resistance mechanism highlights the
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versatility of the Kanamycin kinase type II/NEO protein, as it counteracts multiple members of the aminoglycoside antibiotic class, contributing to the organism's ability to thrive in the presence of these antimicrobial agents.

Caution: Product has not been fully validated for medical applications. For research use only.

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