

Hygromycin-B kinase/HPH Protein, E.coli (P. pastoris, His)

Cat. No.:	HY-P700600
Synonyms:	hphHygromycin-B 4-O-kinase; EC 2.7.1.163; APH(4); Hygromycin B phosphotransferase; Hygromycin-B kinase
Species:	E.coli
Source:	P. pastoris
Accession:	P00557 (M1-E341)
Gene ID:	57286788
Molecular Weight:	40 kDa

PROPERTIES

AA Sequence	<pre> M K K P E L T A T S V E K F L I E K F D S V S D L M Q L S E G E E S R A F S F D V G G R G Y V L R V N S C A D G F Y K D R Y V Y R H F A S A A L P I P E V L D I G E F S E S L T Y C I S R R A Q G V T L Q D L P E T E L P A V L Q P V A E A M D A I A A A D L S Q T S G F G P F G P Q G I G Q Y T T W R D F I C A I A D P H V Y H W Q T V M D D T V S A S V A Q A L D E L M L W A E D C P E V R H L V H A D F G S N N V L T D N G R I T A V I D W S E A M F G D S Q Y E V A N I F F W R P W L A C M E Q Q T R Y F E R R H P E L A G S P R L R A Y M L R I G L D Q L Y Q S L V D G N F D D A A W A Q G R C D A I V R S G A G T V G R T Q I A R R S A A V W T D G C V E V L A D S G N R R P S T R P R A K E </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 Tris/PBS-based buffer, 6% Trehalose, 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.
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 Hygromycin-B kinase/HPH protein, belonging to the aminoglycoside phosphotransferases, executes the inactivation of its antibiotic substrates through phosphorylation. Specifically, it selectively phosphorylates hygromycin and closely related
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compounds, including demethyl analogs and destomycin. This enzymatic activity underscores the specificity of Hygromycin-B kinase/HPH in modifying its substrates within the aminoglycoside class, contributing to the regulation of antibiotic function and potentially influencing microbial resistance mechanisms.

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

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