Proteins

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

Cat. No.: HY-P71517

hphHygromycin-B 4-O-kinase; EC 2.7.1.163; APH(4); Hygromycin B phosphotransferase; Synonyms:

Hygromycin-B kinase

Species: E.coli Source: E. coli

Accession: P00557 (1M-341E)

Gene ID: 57286788

Molecular Weight: Approximately 54.0 kDa

PROPERTIES

AA Sequence				
·	MKKPELTATS	VEKFLIEKFD	SVSDLMQLSE	GEESRAFSFD
	$V\;G\;G\;R\;G\;Y\;V\;L\;R\;V$	NSCADGFYKD	RYVYRHFASA	ALPIPEVLDI
	GEFSESLTYC	ISRRAQGVTL	QDLPETELPA	VLQPVAEAMD
	AIAAADLSQT	SGFGPFGPQG	IGQYTTWRDF	$I\;C\;A\;I\;A\;D\;P\;H\;V\;Y$
	HWQTVMDDTV	SASVAQALDE	LMLWAEDCPE	V R H L V H A D F G
	SNNVLTDNGR	ITAVIDWSEA	MFGDSQYEVA	NIFFWRPWLA
	CMEQQTRYFE	RRHPELAGSP	RLRAYMLRIG	LDQLYQSLVD
	GNFDDAAWAQ	GRCDAIVRSG	AGTVGRTQIA	$R\;R\;S\;A\;A\;V\;W\;T\;D\;G$
	CVEVLADSGN	RRPSTRPRAK	Е	

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.		
Appearance	Lyophilized powder.		
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.		
Endotoxin Level	<1 EU/µg, determined by LAL method.		
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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.

Background

DESCRIPTION

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 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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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