

Proteins

Screening Libraries

Product Data Sheet

BAR/Phosphinothricin N-acetyltransferase Protein, Streptomyces hygroscopicus

Cat. No.: HY-P70002

Synonyms: rStPhosphinothricin N-acetyltransferase/BAR; Phosphinothricin N-acetyltransferase; PPT N-

acetyltransferase; Phosphinothricin-resistance protein; bar

Others Species: Source: E. coli

Accession: P16426 (M1-I183)

Gene ID:

Molecular Weight: 18-20 kDa

PROPERTIES

AA Seq	uence
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MSPERRPADI RRATEADMPA VCTIVNHYIE TSTVNFRTEP QEPQEWTDDL VRLRERYPWL VAEVDGEVAG IAYAGPWKAR NAYDWTAEST VYVSPRHQRT GLGSTLYTHL LKSLEAQGFK SVVAVIGLPN GYAPRGMLRA AGFKHGNWHD DPSVRMHEAL

PVPPRPVLPV VGFWQLDFSL TEI

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 12.5 mM Tris-HCl, 50 mM NaCl, 5% Trehalose, 5% Mannitol, 0.01% Tween 80, 2 mM DTT, 1 mM EDTA, pH 8.5.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O.

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 BAR/Phosphinothricin N-acetyltransferase protein plays a pivotal role in inactivating phosphinothricin (PPT) by facilitating the transfer of an acetyl group from acetyl CoA. Notably, it exhibits the ability to acetylate demethylphosphinothricin while remaining inactive toward PTT or glutamate. This enzymatic specificity positions BAR as a key effector in conferring resistance to phosphinothricin tripeptide (PTT or bialaphos), highlighting its functional significance in cellular responses to these compounds.

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 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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