



Recombinant *S. hygrosopicus* BAR

Catalog #	EPT071
Expression Host	E.coli
DESCRIPTION	Recombinant Streptomyces Hygrosopicus Phosphinothricin N-acetyltransferase is produced by our E.coli expression system and the target gene encoding Met1-Ile183 is expressed.
Accession	P16426
Synonyms	Phosphinothricin N-acetyltransferase; PPT N-acetyltransferase; Phosphinothricin-resistance protein; bar
Mol Mass	20.6 KDa
AP Mol Mass	18-20 KDa, reducing conditions
Purity	Greater than 95% as determined by reducing SDS-PAGE.
Endotoxin	Less than 0.1 ng/μg (1 EU/μg) as determined by LAL test.
FORMULATION	Lyophilized from a 0.2 μm filtered solution of 12.5mM Tris-HCl, 50mM NaCl, 5% Trehalose, 5% Mannitol,





0.01% Tween 80, 2mM DTT, 1mM EDTA, pH8.5.

RECONSTITUTION

Always centrifuge tubes before opening. Do not mix by vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100 μ g/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

SHIPPING

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

STORAGE

Lyophilized protein should be stored at $< -20^{\circ}\text{C}$, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at $4-7^{\circ}\text{C}$ for 2-7 days.

Aliquots of reconstituted samples are stable at $< -20^{\circ}\text{C}$ for 3 months.

BACKGROUND

Phosphinothricin N-acetyltransferase (PAT) is an enzyme that acetylates the free NH_2 group of L-phosphinothricin (L-PPT) in the presence of acetyl-CoA as a co-substrate. It is highly specific for L-PPT and does not acetylate other L-amino acids or





structurally similar molecules. L-PPT is a glutamate analog that can inhibit glutamine synthetase activity in plants, resulting in the accumulation of ammonia to toxic levels and impairment of photosynthesis. The introduction of a PAT gene into a plant genome can confer resistance to glufosinate herbicide during post-emergent applications.

SDS-PAGE

