# **Product Name: Recombinant S. hygroscopicus BAR**

Catalog #: PEV1322



### **Summary**

Name Phosphinothricin N-acetyltransferase/Bar

**Purity** Greater than 95% as determined by reducing SDS-PAGE

**Endotoxin level** <1 EU/μg as determined by LAL test.

Construction Recombinant Streptomyces Hygroscopicus Phosphinothricin N-

acetyltransferase is produced by our E.coli expression system and the target

gene encoding Met1-Ile183 is expressed.

Accession # P16426

Host E.coli

**Species** Streptomyces hygroscopicus

Predicted Molecular Mass 20.6 KDa

Formulation Lyophilized from a 0.2 µm filtered solution of 12.5mM Tris-HCl, 50mM NaCl,

/u200e/u200e5% Trehalose, 5% Mannitol, 0.01% Tween 80, 2mM DTT, 1mM EDTA,

pH8.5.

Shipping The product is shipped at ambient temperature. Upon receipt, store it

immediately at the temperature listed below.

Stability&Storage Store at  $\leq$ -70°C, stable for 6 months after receipt. Store at  $\leq$ -70°C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

cvcles

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is

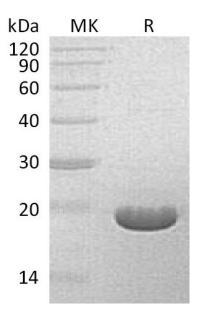
not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

### **SDS-PAGE** image

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### **Alternative Names**

Phosphinothricin N-acetyltransferase; PPT N-acetyltransferase; Phosphinothricin-resistance protein; bar

### **Background**

Phosphinothricin N-acetyltransferase (PAT) is an enzyme that acetylates the free NH2 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.

#### **Note**

For Research Use Only, Not for Diagnostic Use.