

## Recombinant Streptomyces hygrosopicus Bar Protein

Catalog No. PKSQ050087

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

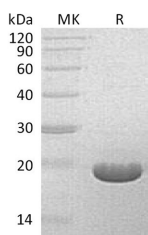
### Description

<b>Synonyms</b>	Phosphinothricin N-acetyltransferase;PPT N-acetyltransferase;Phosphinothricin-resistance protein;bar
<b>Species</b>	Streptomyces hygrosopicus
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met1-Ile183
<b>Accession</b>	P16426
<b>Calculated Molecular Weight</b>	20.6 kDa
<b>Observed molecular weight</b>	18-20 kDa
<b>Tag</b>	None

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	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. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Phosphinothricin N-acetyltransferase (PAT) is an enzyme that acetylates the free NH<sub>2</sub> group of L-phosphinothricin (L-

### For Research Use Only

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.