

Recombinant Streptomyces hygroscopicus Bar Protein

Catalog Number:PKSQ050087



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

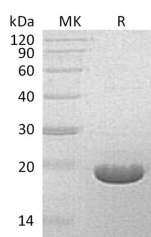
Description

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

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
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. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Reconstitution	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 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.

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