



Recombinant Protein Technical Manual

Recombinant *Streptomyces hygroscopicus* Bar Protein RPES4076

Product Data:

Product SKU: RPES4076

Size: 10µg

Species: *Streptomyces hygroscopicus*

Expression host: *E. coli*

Uniprot: P16426

Protein Information:

Molecular Mass: 20.6 kDa

AP Molecular Mass: 18-20 kDa

Tag:

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°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 PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Met1-Ile183

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.