



Recombinant Protein Technical Manual

Recombinant *S. cerevisiae* TIM14 Protein

RPES4029

Product Data:

Product SKU: RPES4029

Size: 10µg

Species: *S. cerevisiae*

Expression host: *E. coli*

Uniprot: Q07914

Protein Information:

Molecular Mass: 7.9 kDa

AP Molecular Mass: 9 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 20mM Tris, 300mM NaCl, pH8.0.

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

Application:

Synonyms: Mitochondrial import inner membrane translocase subunit TIM14;
Presequencetranslocated-associated motor subunit PAM18; PAM18; TIM14

Immunogen Information:

Sequence: Phe99-Lys168

Background:

Mitochondrial import inner membrane translocase subunit TIM14 (TIM14) is an essential component of the PAM complex. PAM complex is required for the translocation of transit peptide-containing proteins from the inner membrane into the mitochondrial matrix in an ATP-dependent manner. In the complex, TIM14 is required to stimulate activity of mtHSP70 (SSC1). TIM14 belongs to the DnaJ family, which has been involved in Hsp40/Hsp70 chaperone systems. As a mitochondrial chaperone, TIM14 functions as part of the TIM23 complex import motor to facilitate the import of nuclear-encoded proteins into the mitochondria. TIM14 also complexes with prohibitin complexes to regulate mitochondrial morphogenesis, and has been implicated in dilated cardiomyopathy with ataxia.