

Recombinant *S. cerevisiae* TIM14 Protein

Catalog Number: PKSQ050085

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

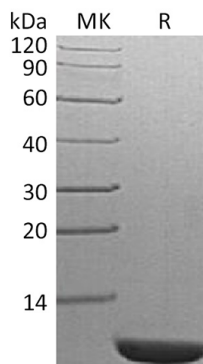
Description

| | |
|----------------------|--|
| Species | <i>S. cerevisiae</i> |
| Source | E.coli-derived <i>S. cerevisiae</i> TIM14 protein Phe99-Lys168 |
| Calculated MW | 7.9 kDa |
| Observed MW | 9 kDa |
| Accession | Q07914 |
| Bio-activity | Not validated for activity |

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 20mM Tris-HCl, 300mM NaCl, pH 8.0. 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. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 95 % as determined by reducing SDS-PAGE.

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.

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