

TIM-16 Protein, *S. cerevisiae*

Cat. No.:	HY-P71367
Synonyms:	Mitochondrial import inner membrane translocase subunit TIM16; Presequence translocated-associated motor subunit PAM16; PAM16; TIM16
Species:	Others
Source:	<i>E. coli</i>
Accession:	P42949 (T54-A119)
Gene ID:	853340
Molecular Weight:	Approximately 11.0 kDa

PROPERTIES

AA Sequence	T L D E S C K I L N I E E S K G D L N M D K I N N R F N Y L F E V N D K E K G G S F Y L Q S K V Y R A A E R L K W E L A Q R E K N A
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 300 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>TIM-16 stands as a pivotal constituent of the PAM complex, an essential assembly dedicated to the ATP-dependent translocation of transit peptide-containing proteins from the inner mitochondrial membrane into the mitochondrial matrix. Within this intricate complex, TIM-16 plays a crucial role in orchestrating the activity of mtHSP70 (SSC1) by engaging in a pivotal interaction with PAM18/TIM14. The strategic positioning of PAM18/TIM14 by TIM-16 at the translocon appears to optimize ATPase stimulation, thereby facilitating the efficient translocation process. TIM-16 exhibits a dynamic existence, forming homodimers and heterodimers with PAM18. While homodimerization might not hold significance in vivo, heterodimerization emerges as an indispensable prerequisite for the regulatory influence on mtHSP70 activity. As an integral component of the larger PAM complex, TIM-16 collaborates harmoniously with mtHSP70, MGE1, TIM44, PAM17, and PAM18, collectively contributing to the intricate machinery orchestrating mitochondrial protein translocation. Additionally, TIM-16 engages in interactions with MDJ2, further expanding its network of molecular associations within the mitochondrial</p>
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environment.

Caution: Product has not been fully validated for medical applications. For research use only.

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