

## PRODUCT SPECIFICATION

Product Name	QPrEST TIM9 Mass Spectrometry Protein Standard
Product Number	QPrEST39513
Protein Name	Mitochondrial import inner membrane translocase subunit Tim9
Uniprot ID	Q9Y5J7
Gene	TIMM9
Product Description	Stable isotope-labeled standard for absolute protein quantification of Mitochondrial import inner membrane translocase subunit Tim9. Lys ( $^{13}\text{C}$ and $^{15}\text{N}$ ) and Arg ( $^{13}\text{C}$ and $^{15}\text{N}$ ) metabolically labeled recombinant human protein fragment.
Application	Absolute protein quantification using mass spectrometry
Sequence (excluding fusion tag)	AAQIPESDQIKQFKEFLGTYNKLTETCFDLCVKDFTTREVKPEETTCSEH CLQKYLKMTQRISMRFQEYHIQQNEALAAKAGLLGQPR
Theoretical MW	28095 Da including N-terminal His <sub>6</sub> ABP fusion tag
Fusion Tag	A purification and quantification tag (QTag) consisting of a hexahistidine sequence followed by an Albumin Binding Protein (ABP) domain derived from Streptococcal Protein G.
Expression Host	<i>Escherichia coli</i> LysA ArgA BL21(DE3)
Purification	IMAC purification
Purity	>90% as determined by Bioanalyzer Protein 230 Purity Assay
Isotopic Incorporation	>99%
Concentration	>5 $\mu\text{M}$ after reconstitution in 100 $\mu\text{L}$ H <sub>2</sub> O
Concentration Determination	Concentration determined by LC-MS/MS using a highly pure amino acid analyzed internal reference (QTag), CV $\leq 10\%$ .
Amount	>0.5 nmol per vial, two vials supplied.
Formulation	Lyophilized in 100 mM Tris-HCl 5% Trehalose, pH 8.0
Instructions for Reconstitution	Spin vial before opening. Add 100 $\mu\text{L}$ ultrapure H <sub>2</sub> O to the vial. Vortex thoroughly and spin down. For further dilution, see Application Protocol.
Shipping	Shipped at ambient temperature
Storage	Lyophilized product shall be stored at $-20^{\circ}\text{C}$ . See COA for expiry date. Reconstituted product can be stored at $-20^{\circ}\text{C}$ for up to 4 weeks. Avoid repeated freeze-thaw cycles.
Notes	For research use only

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