PRODUCT SPECIFICATION

Product Name	QPrEST GEM Mass Spectrometry Protein Standard
Product Number	QPrEST25162
Protein Name	GTP-binding protein GEM
Uniprot ID	P55040
Gene	GEM
Product Description	Stable isotope-labeled standard for absolute protein quantification of GTP-binding protein GEM. Lys (^{13}C and ^{15}N) and Arg (^{13}C and ^{15}N) metabolically labeled recombinant human protein fragment.
Application	Absolute protein quantification using mass spectrometry
Sequence (excluding fusion tag)	MTLNNVTMRQGTVGMQPQQQRWSIPADGRHLMVQKEPHQYSHRNRHSATP EDHCRRSWSSDSTDSVISSESG
Theoretical MW	26069 Da including N-terminal His_6ABP 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	*Escherichia coli* LysA ArgA BL21(DE3)
Purification	IMAC purification
Purity	>90% as determined by Bioanalyzer Protein 230 Purity Assay
Isotopic Incorporation	>99%
Concentration	>5 µM after reconstitution in 100 µl H_20
Concentration Determination	Concentration determined by LC-MS/MS using a highly pure amino acid analyzed internal reference (QTag), CV ≤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 µL ultrapure H_2O 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°C. See COA for expiry date. Reconstituted product can be stored at -20°C for up to 4 weeks. Avoid repeated freeze-thaw cycles.
Notes	For research use only

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