## PRODUCT SPECIFICATION

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| Product Name | QPrEST THMS1 Mass Spectrometry Protein Standard |
| Product Number | QPrEST31393 |
| Protein Name | Protein THEMIS |
| Uniprot ID | Q8N1K5 |
| Gene | THEMIS |
| Product Description | Stable isotope-labeled standard for absolute protein quantification of Protein THEMIS. 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) | EGCESLQPFELPMNFPGLFKIVADKTPYLTMEEITRTIHIGPSRLGHPCF YHQKDIKLENLIIKQGEQIMLNSVEEIDGEIMVSCAVARNHQTHSF |
| Theoretical MW | 28770 Da including N-terminal $His_6$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 | *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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