


PRODUCT SPECIFICATION

Product Name	QPrEST TOP2A Mass Spectrometry Protein Standard
Product Number	QPrEST23071
Protein Name	DNA topoisomerase 2-alpha
Uniprot ID	P11388
Gene	TOP2A
Product Description	Stable isotope-labeled standard for absolute protein quantification of DNA topoisomerase 2-alpha. 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)	RGQRVIPRITIEMKAEAEKKNKKIKNENTEGSPQEDGVELEGLKQRLEK KQKREPGTKTKKQTTLAFKPIKKGKKNPWSDESSEDRSSDESDFVP
Theoretical MW	29129 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	<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 µM after reconstitution in 100 µl H ₂ O
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 ₂ 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°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

 *Product of Sweden. For research use only. Not intended for pharmaceutical development, diagnostic, therapeutic or any in vivo use. No products from Atlas Antibodies may be resold, modified for resale or used to manufacture commercial products without prior written approval from Atlas Antibodies AB.*

This product is licensed under U.S. Patent No. 7,396,688 and foreign counterparts from E. I. du Pont de Nemours and Company. The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product for research and development only, including services for a third party for consideration. The buyer cannot sell or otherwise transfer this product, its components or materials made using this product or its components to a third party. Information about licenses for excluded uses is available from: E. I. du Pont de Nemours and Company; Attn: Associate Director, Commercial Development; DuPont Experimental Station E268; 200 Powdermill Rd.; Wilmington, DE 19803; 1-877-881-9787 (voice), 1-302-695-1437 (fax), licensing@dupont.com.

Warranty: The products supplied by Atlas Antibodies are warranted to meet stated product specifications and to conform to label descriptions when used and stored properly. Unless otherwise stated, this warranty is limited to one year from date of sales for products used, handled and stored according to Atlas Antibodies AB's instructions. Atlas Antibodies AB's sole liability is limited to replacement of the product or refund of the purchase price. All products are supplied for research use only. They are not intended for medicinal, diagnostic or therapeutic use. No products from Atlas Antibodies may be resold, modified for resale or used to manufacture commercial products without prior written approval from Atlas Antibodies AB Rev. December 2012

Atlas Antibodies AB	Phone	+46(0)8 54 59 58 50	IBAN	SE91 6000 0000 0004 6991 6761	Bankgiro	5469-1092
Voltavägen 13A	Fax	+46(0)8 54 59 58 51	Swift Code/BIC	HANDSESS	Registered Office	Stockholm, Sweden
SE-168 69 Bromma	contact@atlasantibodies.com		Reg. No.	556682-8082	Innehar F-skattsedel	
Sweden	atlasantibodies.com		VAT ID No.	SE556682808201		