

PeptiQuant™ MRM Assay Kits – Apolipoproteins



Researchers in academia and life science industries are progressively adapting a targeted, bottom-up MS-based proteomic workflow for disease biomarker evaluation and systems biology investigations. This requires absolute quantification of surrogate peptides in the sample matrix, a requisite that is best achieved using stable isotope-labeled standards (SIS, commonly peptides) in conjunction with an MRM or PRM detection technique. Although the use of SIS has increased the reliability of LC-MS/MS-based assays, to improve the interlaboratory precision and enable more widespread use of this “absolute” quantitative technique in disease biomarker assessment studies, methods must be standardized.

CIL is pleased to offer the **PeptiQuant™ Biomarker Assessment Kit – Apolipoproteins (APO-14)**, to help researchers screen the biomarker utility of a panel of apolipoproteins in human plasma samples. Specifically, this kit contains the necessary materials (e.g., concentration-balanced SIS mixes and protocols) and tools (for acquisition and analysis) to quantify up to 14 apolipoproteins in human plasma samples.

Benefits of the PeptiQuant™ Apo-14 Kit

- Standardize biomarker assessment
- Diminish interlaboratory variability
- Improve method transferability

Performing protein biomarker evaluation?

The **PeptiQuant™ Biomarker Assessment Kit – Apolipoproteins (APO-14)** has been developed for the rapid and precise quantitation of 14 plasma apolipoproteins (see list on back) utilizing 27 surrogate peptides (see figure on back), valuable in small- and large-scale biomarker assessment (from discovery to preclinical validation) studies. The APO-14 provides an easy solution for non-expert users to rigorously assess the utility and significance of 14 apolipoproteins in various disease states with only 10 µL of human plasma per sample.

The apolipoproteins can be quantified in the user-supplied reference (or control) human plasma and the user’s experimental (or patient) samples from 27 peptide surrogates using a quantitative approach involving linear regression analysis of peptide standard curves. The software tool – Qualis-SIS – facilitates automated curve generation, assay performance determination, and effortless interpretation of quantitative results. For optimal results, this kit should be partnered with the QC kits (e.g., PeptiQuant™ Daily LC-MS Platform Performance Kit) to ensure satisfactory performance of the instrument platform before proceeding.

Each Apo-14 kit contains the following items:

- Lyophilized SIS peptide mixture for spiking into a reference plasma sample digest for standard curve generation
- Lyophilized SIS peptide mixture for spiking into experimental sample digests (n = 20 or 50)
- USB drive that contains the SOP (includes a troubleshooting guide), a platform-dependent acquisition method and acquisition worklist, a platform-dependent quantitative analysis method, Qualis-SIS input files (for control and experimental analysis), guideline values, and a certificate of analysis for the SIS peptide mixture

(continued)

Cambridge Isotope Laboratories, Inc. is the exclusive distributor of MRM Proteomics Inc.

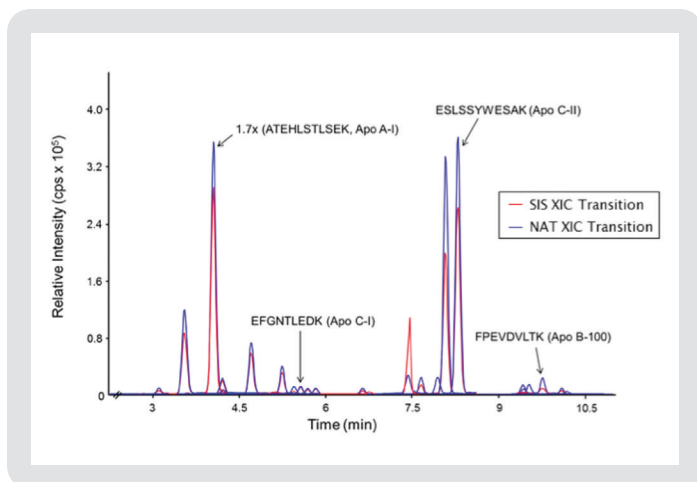


Figure. Representative XIC trace of the 27 interference-free peptides in the Apo-14 kit panel. The quantifier transitions of the synthetic (SIS) and endogenous (natural or NAT) peptides are shown only for clarity. The determined concentrations were found to range from 1.6 mg/mL (for Apo A-I) to 7.8 µg/mL (for Apo C-I) in the pooled sample analyzed.

**Custom kits
are available.
Please
inquire.**

Kits are available for 20 or 50 samples

Catalog No.	Description
APO-A6490-14-20	PeptiQuant™ Apolipoprotein Biomarker Assessment Kit for 14 Proteins using the Agilent 6490
APO-A6495-14-20	PeptiQuant™ Apolipoprotein Biomarker Assessment Kit for 14 Proteins using the Agilent 6495

14 Quantotypic Proteins

Apolipoprotein A-I	Apolipoprotein E
Apolipoprotein A-II	Apolipoprotein H
Apolipoprotein A-IV	Apolipoprotein J
Apolipoprotein B-100	Apolipoprotein L1
Apolipoprotein C-I	Apolipoprotein M
Apolipoprotein C-II	Apolipoprotein(a)
Apolipoprotein C-I	Beta-2-glycoprotein 1 (or Apolipoprotein H)
Apolipoprotein D	Clusterin (or Apolipoprotein J)

Please contact us if you do not see your protein(s) of interest listed above. We have the capability to supply custom kits to suit a variety of needs. If you are interested in using these kits but your LC-MS instrument is not listed, again, please contact us. We are developing kits for other platforms – if a kit for your LC-MS instrument is not yet available, we may be able to supply it as a custom kit.

For more information regarding these products and MRM Proteomics Inc. please visit mrmproteomics.com.

Research products are distributed and sold worldwide via our extensive network.

To request a quotation or place an order, please contact CIL Sales at
 email: cilsales@isotope.com
 telephone: 1.978.749.8000
 1.800.322.1174 (North America only)
 or visit isotope.com

For our international customers
 Please contact CIL International Sales at
 email: intlsales@isotope.com
 telephone: +1.978.749.8000
 CIL's distributor listing is available at isotope.com

