

Method for Quantification of Lipoprotein(a)

The innovation offers a reference method for the quantification of lipoprotein(a) in clinical and research applications and serves to broaden the use of Lp(a) as a biomarker in cardiovascular disease outcome measurement and risk assessment.

What is the Problem?

Lipoprotein(a) is a peculiar lipoprotein which plasma concentration has been causally linked to an increased risk of cardiovascular disease. Current methods for quantifying serum levels of lipoprotein(a) lack standardization which is a major hindrance to the broader use of Lp(a) as a biomarker in cardiovascular disease outcome measurement and risk assessment.

What is the Solution?

The solution is an innovative reference method for the quantification of lipoprotein(a) in clinical and research applications. The method offers a standardized LC-MS/MS protocol for the clinical measurement of Lp(a), consisting of a highly optimized sample preparation protocol, well-designed Lp(a) quantification standards, and recombinant apolipoprotein(a) for calibration.

What is the Competitive Advantage?

The competitive advantage of this innovation lies in its ability to provide a standardized and accurate method for measuring Lp(a) levels, enabling its broader use as a biomarker in cardiovascular disease research and diagnostics. The method can be applied to various applications, including Lp(a)-targeting drug trials, identification of lipoprotein(a) isoforms, and stratification of cardiovascular disease risk scoring in patients considering medication initiation or change. With the global cardiovascular diagnostic testing industry estimated to reach \$15.43 billion USD by 2030, this innovation holds significant potential in contributing to the market's growth and addressing the ongoing need for standardized Lp(a) measurement techniques.

Patent Information:

Technology ID

BDP 8380

Category

Research Tools
Therapeutics/Cardiovascular
Selection of Available
Technologies

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References

1. Marcovina, S. M., Clouet-Foraison, N., Koschinsky, M. L., Lowenthal, M. S., Orquillas, A., Boffa, M. B., Hoofnagle, A. N., & Vaisar, T. (2021) ,
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7935757/>, <https://academic.oup.com/clinchem>,
67, 490-499