

Biopharma

By your side

For gene therapeutic development and QC



Enabling every step of your gene therapy analysis

In the development of gene therapy products, it is crucial to monitor vector attributes such as purity, identity, and the empty: full capsid ratio. To ensure the production of safe and high-quality gene therapy products while minimizing time-to-market and manufacturing costs, careful consideration must be given to the evaluation of analysis options. Key considerations in selecting analysis options include sensitivity for low sample amounts, the ability to achieve fast and robust liquid chromatography (LC) separation, and confidence in mass confirmation.

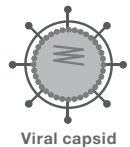
These factors are vital for accurate and efficient analysis, enabling researchers and analysts to make informed decisions in the development of gene therapy products. Discover how our advanced analysis solutions can enhance the evaluation of gene therapy products, providing sensitive and reliable analysis while optimizing time and cost efficiencies. With our cutting-edge technology, you can confidently assess vector attributes and accelerate the development of safe and effective gene therapy treatments.



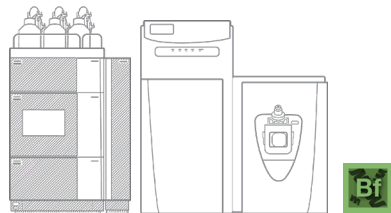
Gene therapy analysis

Fast, accurate, and scalable methods for gene-therapy-based products

For gene therapy products, vector attributes need to be monitored, including purity, identity, and empty: full capsid ratio. Considerations that should be made whilst evaluating analysis options include: Sensitivity for low sample amounts, fast, robust LC separation and confident mass confirmation to ensure the development of safe, high-quality gene therapy products while reducing time-to-market and reducing costs of manufacturing.

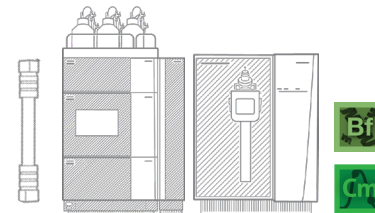


Intact capsid mass analysis



Thermo Scientific™ Q Exactive™ UHMR Hybrid-Quadrupole Orbitrap MS
Native mass spectrometry-based approach to assess the ratio of empty to full AAV-capsids
Ultra-high mass range (up to m/z 80,000)

Capsid protein characterization



Vanquish UHPLC-Orbitrap Exploris 240 MS
The correct AAV serotype is selected, then identity and purity are monitored; either on the intact protein level or by peptide mapping



Value-added workflow benefits

- Robust and reliable separation for rapid monitoring using Vanquish UHPLC
- Analysis of megadalton biomolecular assemblies
- Confident characterization of virus capsid proteins
- Determine molecular weight and heterogeneity with Direct Mass Technology mode



Learn more about gene therapy analysis



Gene Therapy Solutions Guide - Fast, accurate, and scalable methods for gene-therapy-based product manufacturing, analytical testing, and characterization

By your side goes beyond products

As a company with a deep understanding of the challenges of biotherapeutic development, we are driven to perfect the technologies that help you deliver next-generation drugs to market faster. You're gaining ground and advancing science at every step. It's a lot of pressure, but you've got the knowledge and we're here to help. That's why being by your side extends well beyond our technologies. Thermo Fisher Scientific also supports you with superior services and application expertise that we've spent over decades curating. By getting the most out of your Thermo Scientific workflow solutions, you can put your focus where it needs to be—making a positive impact.

**Learn more about how Thermo Fisher Scientific
can power your biotherapeutic discovery**

Learn more at thermofisher.com/genetherapyanalysis

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