Thermo Fisher
SCIENTIFIC

Biopharma

Innovative analytical solutions for biopharmaceutical characterization

Advanced workflow solutions to accelerate biotherapeutics development and manufacturing

Biotherapeutics are evolving rapidly. Their characterization requires novel and robust analytical workflows to confirm identity and to determine purity. Partner with Thermo Fisher Scientific to discover how advanced workflow solutions can enable you to characterize your biotherapeutic with remarkable speed and certainty.

Workflow solutions from Thermo Fisher Scientific for biopharmaceutical characterization provide robust and accurate analysis in the areas of:

- mRNA vaccines and therapeutics
- Gene therapies
- Oligonucleotide therapeutics
- Protein therapeutics

Thermo Fisher Scientific has demonstrated how advanced workflow solutions can enable you to characterize your biotherapeutic quickly and accurately.

mRNA characterization

Messenger RNA (mRNA) therapeutics enable the body to make the proteins we need to prevent, treat, or cure diseases. mRNAs are large, delicate molecules that need to be protected by lipid nanoparticles (LNPs) before they enter target cells. This safe and effective approach is transforming the way we care for patients. Integrating our unique technology, we have developed a suite of novel analytical solutions for comprehensive characterization of mRNAs and LNPs.

Website ➡

mRNA Tool Kit ➡

Gene therapy characterization

Advances in genetics and bioengineering have evolved the development of gene therapy and with it, the unprecedented potential to treat diseases caused by recessive gene disorders, acquired genetic diseases, and some viral infections. Our robust assays enable you to analyze gene therapy products quickly with improved accuracy and reproducibility. We are your trusted partner when it comes to developing your gene therapy product and accelerating its progression to market.

Website ⏺

Gene therapy analytical solutions guide ➡

## Oligonucleotide characterization

The characterization of oligonucleotide therapeutics requires robust and accurate analytical solutions to confirm identity, and to determine purity. We offer optimized analytical solutions for characterizing a wide range of oligonucleotide therapeutics, including antisense oligonucleotides (ASOs), RNA interference (RNAi) including siRNA, miRNA, and aptamers to meet your needs.

- Oligonucleotides, impurities and degradation products
- High resolution LC-MS of therapeutic oligonucleotides
- LC-UV characterization of oligonucleotides
- Oligonucleotide mass confirmation
- Ultra high resolution anion exchange LC-UV characterization

Website ➡

Oligonucleotide therapeutic analysis information kit ➡
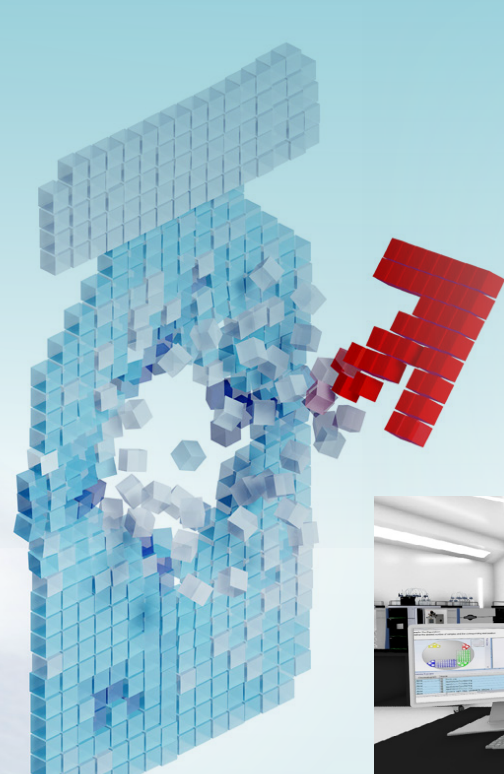
Multi-attribute characterization

Thermo Scientific™ Multi-Attribute Method (MAM) 2.0 is an end-to-end, single-vendor solution that provides a holistic, compliance-ready platform for deployment from development to quality control. You can rely on our global support team to help you achieve fast decision-making and maximize overall quality assurance.

MAM 2.0 website ➡

Multi-Attribute Method (MAM) 3D virtual lab tour ➡

To ensure your biopharmaceutical analysis is done with confidence:

- Contact one of our analytical experts
- Visit for more information on biopharmaceutical characterization
- Join our biopharma community

Learn more at **thermofisher.com/genetherapyanalysis**

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