



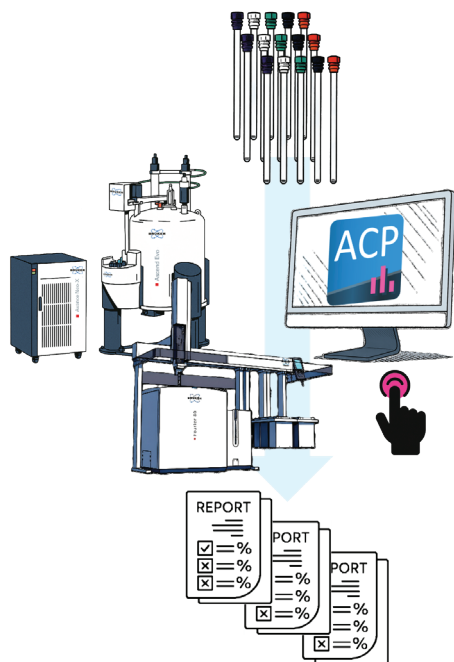
## NMR BIOPHARMA SOLUTIONS

# Advanced Chemical Profiling for the Biopharma Industry

Next Generation Solution Software for Hands-Off, Sample-to-Report NMR Analysis

*Innovation with Integrity*

Rethink NMR for CMC and QC with Advanced Chemical Profiling (ACP). ACP streamlines routine NMR testing with push-button simplicity while providing a new advanced analytical toolbox. It simplifies method development and enables pharma labs to fully leverage NMR, from raw materials to complex drug products.

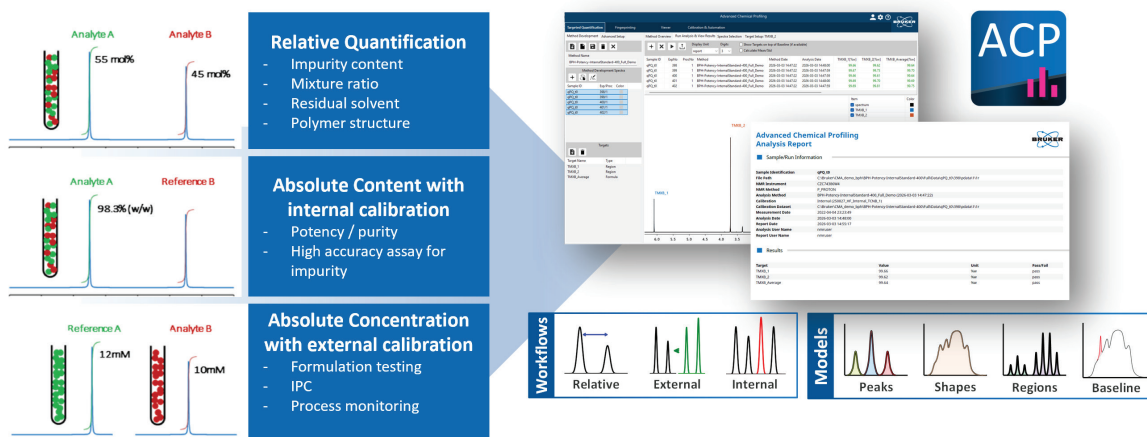


### Benefits

- True sample-to-report automated workflows
- No expertise required for routine operations
- Adapt to any quantitative NMR workflow
- Enable automated identification testing
- Next-generation algorithms tackling complex matrices
- Seamlessly integrate with TopSpin, SpinPilot, IconNMR, and GoScan
- Built-in support for GMP/GLP compliance

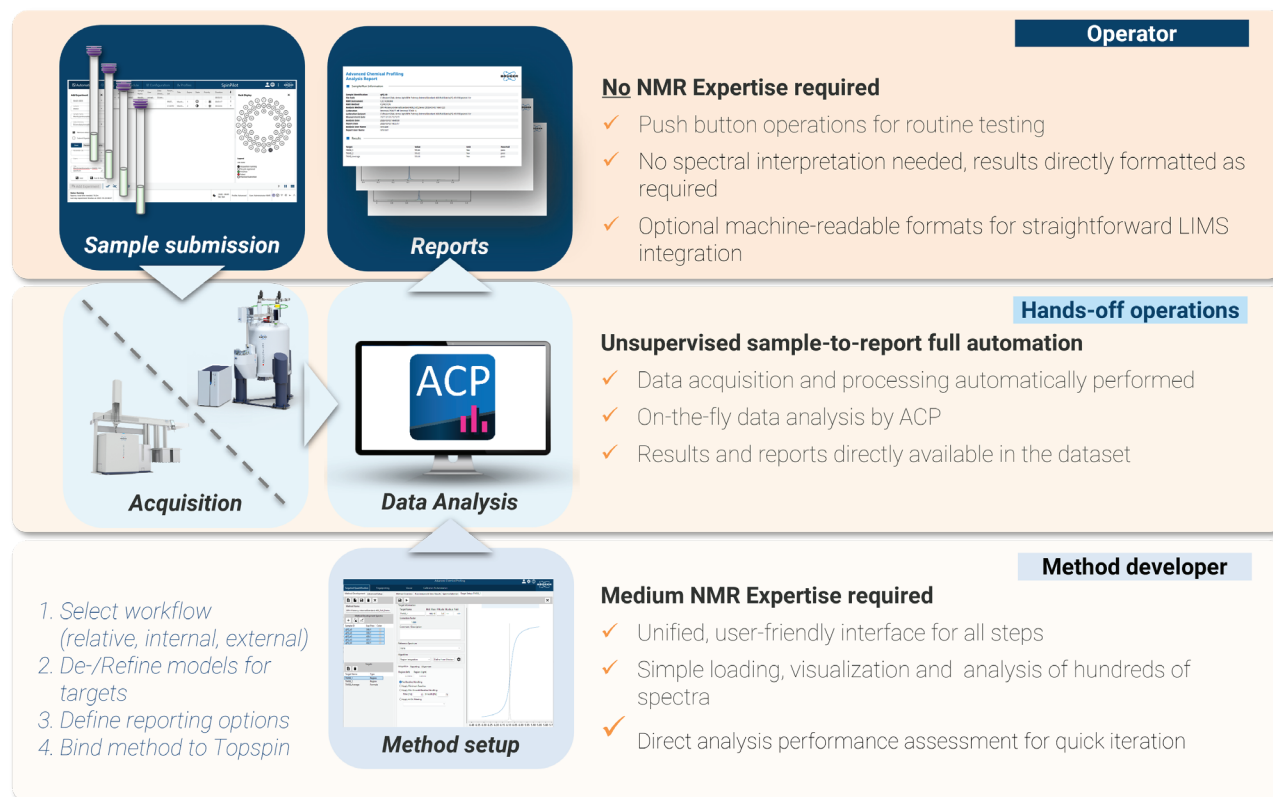
# One-stop solution for effortless quantification, in simple or complex matrices

**Straightforward implementation of all qNMR workflows**, from simple relative content to high-accuracy, absolute potency determination.

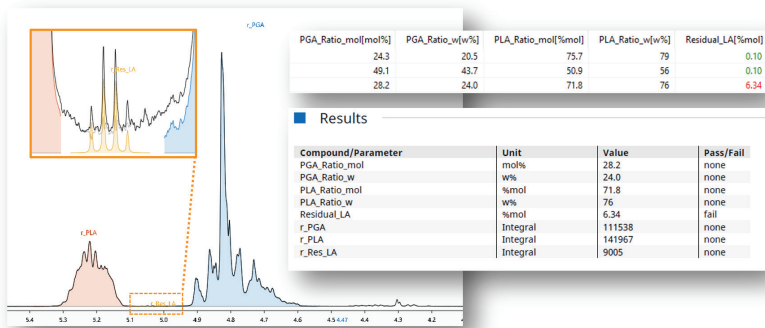


- Unified solution for all qNMR workflows
- User-friendly interface for method setup - no script, no external files
- User-selectable algorithms for each target to adapt to each product and matrix, including complex baseline and overlapping signals
- Highly customizable, with direct pass/fail decision capabilities, tailored calculation methods, and flexible reporting options

**Simple setup for the method developer, push-button operations for the user**



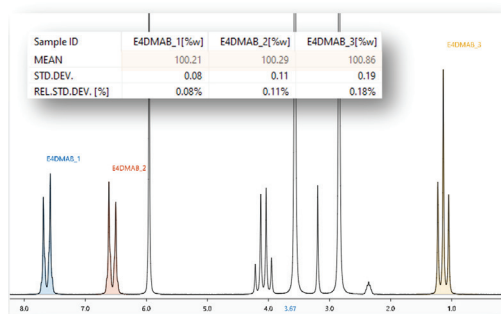
## Effortless qualitative and quantitative assays



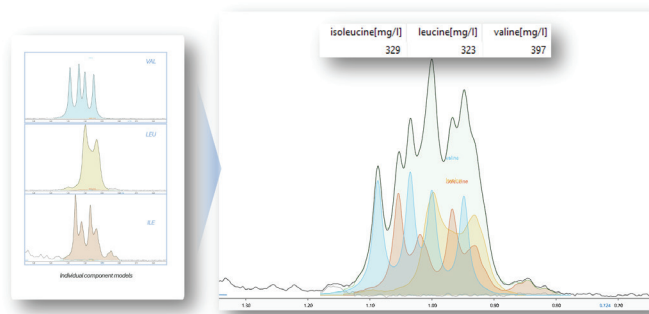
### Control of polymer raw material for block ratio and residual monomer content (PLGA) (400 MHz)

- Region integration for main polymer signals
- Advanced signal fitting and baseline correction for accurate residual monomer content with Pass/Fail statement
- Results directly expressed in mol% and wt%

### Absolute purity on API model (80 MHz, 9 replicates)

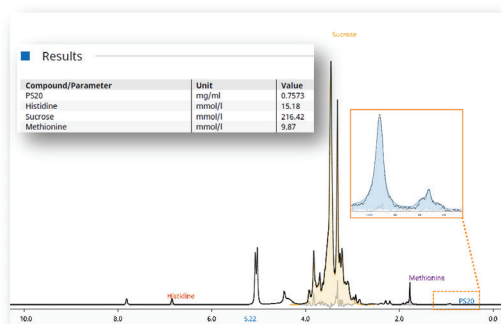


### Concentration measurement for in-process control (80 MHz)



- Direct purity calculation using integration of internal standard and model API resonances
- Combination of several resonances can be used to improve accuracy
- Statistical information directly available in ACP to assess accuracy and precision
- Direct concentration measurement using signal fitting and external standard
- Strongly overlapped signals can be used as interferences are solved by fitting
- Reference models can be provided as experimental shape or built using theoretical patterns

### Multi-attribute testing of biologic formulation (80 MHz)



Learn More:



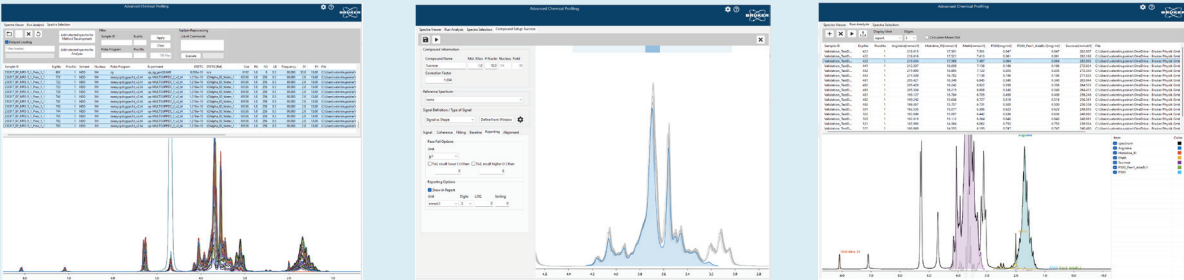
### Insider Tips

- ACP handles all NMR nuclei. Quantitate  $^{31}\text{P}$ ,  $^{19}\text{F}$ ,  $^{13}\text{C}$ ,  $^7\text{Li}$ ,  $^{23}\text{Na}$ ... as easily as  $^1\text{H}$
- ACP algorithms can also be leveraged to implement automated identification testing
- ACP supports method and result versioning, allowing straightforward rollback and comparison

- Direct content testing of excipients concentration, including the critical surfactant
- Signal fitting resolves interferences, enabling accurate quantification
- Multi-attribute testing in full automation, replacing several chromatographic methods with a single NMR procedure

## Simple to use, Simple to run

The ACP user-friendly, unified interface empowers users to set up methods, review results, and (re)analyze hundreds of spectra in just a few clicks.



- Smoothly load, compare, and overlay hundreds of datasets
- (Re)process directly in ACP using TopSpin commands
- Setup methods entirely graphically - no code, no external files
- Directly bind to TopSpin methods for full sample-to-report automation
- Review results dynamically, (re)analyze entire batches as needed
- Directly assess fit and baseline quality for quick iteration


**NMR Solutions for QC**

**DRIVE GS** GMP-Compliance with comprehensive **GxP readiness kits**

**ACP** End-to-end analytical workflows with the **Advanced Chemical Profiling** software



**Benchtop NMR  
Fourier 80**



**High Field NMR  
AVANCE NEO-X  
with Evo Magnet**

- Full support for GLP and GMP compliance
- Same platform as TopSpin GxP for easy user management, audit trail review and data handling
- Part of Bruker GxP readiness kits (upgrade kit available)

## Built-in support for compliance

ACP integrates seamlessly with Bruker NMR solutions, including for GLP and GMP regulated applications. Testing and QC laboratories can now easily implement NMR assays under full automation, leveraging the benefits of qNMR for robust procedures with streamlined development and life-cycle management. ACP can be installed and qualified on existing systems or directly included with new equipment. Laboratories can smoothly achieve full regulatory compliance without compromising productivity or turnaround time.

Bruker BioSpin is continually improving its products and reserves the right to change specifications without notice. Order No. BS-100107 © 04/2026 Bruker BioSpin.

**Bruker BioSpin**  
info@bruker.com

bruker.com

**Advanced Chemical  
Profiling**



**NMR solutions for  
QC**

