



International Association of  
**Therapeutic Drug Monitoring  
and Clinical Toxicology**



Société Française de  
Pharmacologie et de Thérapeutique

**IATDMCT  
& SFPT  
2026**

**27TH > 30TH SEPTEMBER 2026**

**RENNES**  
COUVENT DES JACOBINS

**LC–MS/MS measurement of  
therapeutic mAbs and anti-drug antibodies**  
**mAbXmise kits + Xevo TQ Absolute XR**

The analytical data presented in this material are intended to demonstrate the robustness of a clinical research method. These data in no way substitute for independent method validation required by any applicable legal or laboratory standards.

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## WHY & HOW

A standardized multiplex LC-MS/MS workflow for monitoring the concentration of inflammation mAbs and ADAs.

### Why LC-MS/MS?

Multiplex – Instruments already used in pharmacology labs  
No capture antibody => no variability  
Use of Internal Standard

### What was measured?

4 therapeutic mAbs: IFX, ADL, UST, VDZ  
2 ADAs: anti-IFX, anti-ADL

### Fast analysis

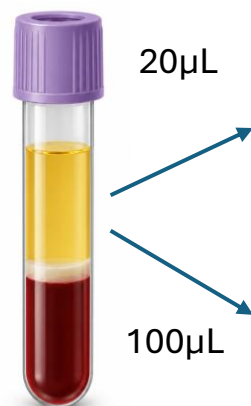
Standardized mAbXmise preparation  
+8 min LC-MS run.

### CE-IVDR mAbXmise kits for sample prep

ITDM2 – multiplex for 7 mAbs



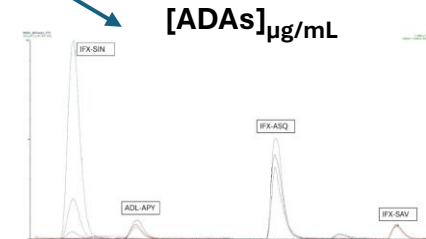
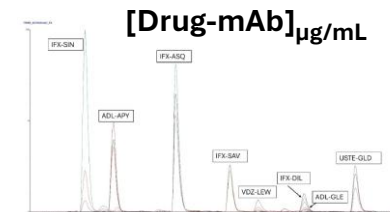
IADA1 – multiplex for 2 ADAs



### LC-MS/MS analyses



Methods provided with the kits



The workflow combines standardized sample preparation, high specificity and multiplexing.

The mAbXmise Kit described has not been cleared by any regulatory entity for diagnostic purposes outside of Europe. The end user is responsible for completion of the method development and validation. Promise Proteomics mAbXmise Kits are not available for sale in all countries. For information on availability, please contact your local sales representative.

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# Analytical Results

## Strong analytical performance across drug-mAbs and ADAs

### Precision

RSD < 10%  
for both assays

### Accuracy

mAbs: 94.2–114.2%  
ADAs: 90.5–105.6%

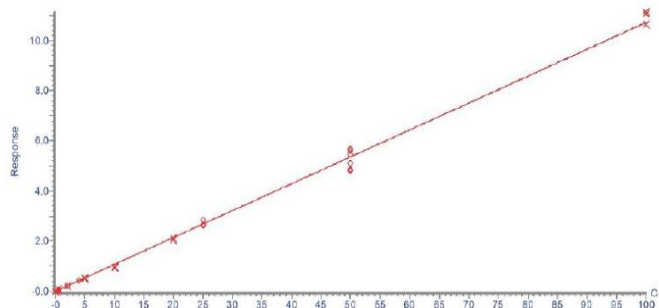
### Drug calibration

0.5–100 µg/mL  
 $r^2 > 0.99$

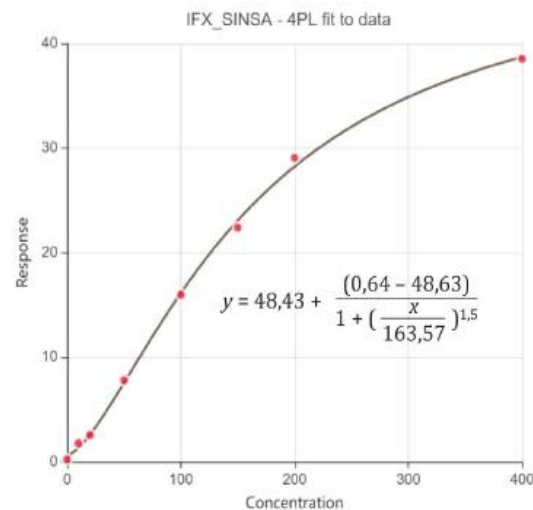
### ADA calibration

10–400 ng/mL  
4PL response

Compound name: Infliximab SAV/light  
Correlation coefficient:  $r = 0.998907$ ,  $r^2 = 0.997815$   
Calibration curve:  $0.107248 * x + -1.59981e-005$   
Response type: Internal Std (Ref 9) Area \* (IS Conc / IS Area)  
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



|                        | Infliximab |       |       |       | Adalimumab |       | Ustekinumab | Vedolizumab |
|------------------------|------------|-------|-------|-------|------------|-------|-------------|-------------|
|                        | SAV        | ASQ   | SIN   | DIL   | GLE        | APY   | GLD         | LEW         |
| QC low (4 µg/mL) n=3   |            |       |       |       |            |       |             |             |
| Mean                   | 4.1        | 4.3   | 3.9   | 4.0   | 4.6        | 3.9   | 3.8         | 3.8         |
| SD                     | 0.05       | 0.00  | 0.15  | 0.10  | 0.15       | 0.10  | 0.15        | 0.25        |
| RSD %                  | 1.2        | 0.0   | 3.8   | 2.4   | 3.3        | 2.5   | 4.0         | 6.5         |
| Accuracy               | 101.7      | 106.7 | 98.3  | 103.3 | 114.2      | 98.3  | 94.2        | 95.8        |
| QC med (25 µg/mL) n=3  |            |       |       |       |            |       |             |             |
| Mean                   | 25.2       | 24.9  | 25.5  | 25.2  | 24.1       | 24.7  | 24.9        | 24.8        |
| SD                     | 1.10       | 0.55  | 0.90  | 1.60  | 1.90       | 0.75  | 0.70        | 0.65        |
| RSD %                  | 4.2        | 2.2   | 3.5   | 6.3   | 7.7        | 3.0   | 2.8         | 2.6         |
| Accuracy               | 100.8      | 99.6  | 101.9 | 100.9 | 96.4       | 98.9  | 99.7        | 99.3        |
| QC high (50 µg/mL) n=6 |            |       |       |       |            |       |             |             |
| Mean                   | 49.0       | 48.8  | 49.6  | 49.9  | 48.2       | 49.8  | 49.3        | 49.8        |
| SD                     | 3.20       | 2.70  | 3.64  | 2.26  | 2.16       | 3.57  | 3.48        | 3.26        |
| RSD %                  | 6.5        | 5.5   | 7.3   | 4.5   | 4.5        | 7.2   | 7.1         | 6.5         |
| Accuracy               | 98.0       | 97.6  | 99.2  | 99.8  | 99.5       | 99.5  | 98.5        | 99.6        |
| QC sup (0.5 µg/mL) n=3 |            |       |       |       |            |       |             |             |
| Mean                   | 0.5        | 0.5   | 0.6   | n/a   | n/a        | 0.5   | 0.5         | 0.6         |
| SD                     | 0.05       | 0.00  | 0.00  | n/a   | n/a        | 0.05  | 0.00        | 0.05        |
| RSD %                  | 9.4        | 0.0   | 0.0   | n/a   | n/a        | 9.4   | 0.0         | 8.8         |
| Accuracy               | 106.7      | 100.0 | 113.3 | n/a   | n/a        | 106.7 | 93.3        | 113.3       |



| mAb        | QC (75 ng/mL) n=4 |            |            | Adalimumab |
|------------|-------------------|------------|------------|------------|
|            | Infliximab        | Infliximab | Infliximab |            |
| Peptide    | IFX-SAV           | IFX-ASQ    | IFX-SIN    | ADL-APY    |
| Mean       | 68.7              | 69.9       | 68.6       | 82.1       |
| SD         | 4.4               | 2.65       | 2.79       | 16.92      |
| RSD %      | 6.4               | 3.8        | 4.1        | 20.6       |
| Accuracy % | 90.5              | 92.6       | 90.6       | 105.6      |

Sensitive, precise and selective multiplex quantification with no reported interferences

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## Clinical Samples

## Patient samples: agreement with established immunoassays

### 7 patient samples

Infliximab- or adalimumab-treated samples were analyzed with ITDM2 and compared with immunoassays.

### Drug concentrations

Good agreement between mAbXmise + LC-MS/MS and immunoassay, with expected method-dependent differences (bias).

### Anti-drug antibodies

ADAs detected in 3 patients: 2 anti-IFX and 1 anti-ADL, consistent with ELISA.

## What should the audience remember?

**Solution = Standardized mAbXmise kits coupled to LC-MS/MS**

**Reliable quantification + Multiplex + ADA detection + rapid implementation**

**=**

**a strong platform for biologics monitoring**

More data on [www.promise-proteomics.com](http://www.promise-proteomics.com)



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