



Product name Starter kit TDM



Catalog number STAKIT01

Product description

The TDM starter kit is a mix of the following therapeutic monoclonal antibodies (t-mAbs) :

- Adalimumab
- Infliximab
- Ipilimumab
- Cetuximab
- Bevacizumab
- Pembrolizumab
- Nivolumab
- Rituximab
- Trastuzumab

This product contains 20 µg of each t-mAbs. The mix of t-mAbs has been digested and is ready for LC-MS injection.

This product is suited for setting up LC-MS methods for monoclonal antibody detection and quantification.

Protocols

Product preparation

For product preparation we recommend the following steps:

1. Briefly centrifuge the tube before opening
2. Reconstitute by adding 200 µL of 2% ACN, 0.1% formic acid for a final concentration of 100 µg/mL for each unlabelled mAb
3. Vortex gently to insure complete dissolution
4. Wait 15 minutes at Room temperature before proceeding further
5. Vortex gently again and centrifuge briefly
6. Inject 10 µL into your LC-MS system. This volume can be adjusted.

Product storage

The product is lyophilized and shipped at room temperature. **Store at -80 °C upon receipt.**

After reconstitution, the product can be preserved at 4°C for a 2-3 weeks.

Avoid multiple freeze-thaw cycles

How to use our product

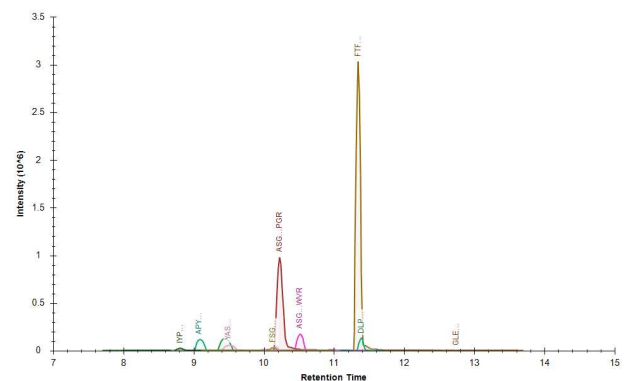


The TDM starter kit is designed to help you:

- to implement and optimize LC-MS methods for the absolute quantification of the t-mAbs contained in this product
- to check retention times of your Scheduled LC method
- to check the state of your LC-MS system

References

1. **G.Picard, D. Lebert, et al.** PSAQ standards for accurate MS-based quantification of proteins: from the concept to biomedical applications, J. Mass Spectrom. 2012, 47, 1353-1363
2. **J-F. Jourdil, et al.** Infliximab quantitation in human plasma by liquid chromatography-tandem mass spectrometry: towards a standardization of the methods?, Anal. Bioanal. Chem. 2017, 409, 1195-1205
3. **A. Millet, et al.** Determination of Cetuximab in Plasma by Liquid Chromatography-High-Resolution Mass Spectrometry Orbitrap With a Stable Labeled ¹³C,¹⁵N-Cetuximab Internal Standard., Ther. Drug. Monit. 2019, 41, 467-475
4. **M. El Amrani, et al.** Simultaneous Quantification of Free Adalimumab and Infliximab in Human Plasma Using a Target-Based Sample Purification and Liquid Chromatography-Tandem Mass Spectrometry., Ther. Drug. Monit. 2019, 41, 640-647





Example of SRM transitions that can be monitored on your system as a starting point

Drug name	Therapeutic monoclonal antibody	Peptide	Precursor ion (m/z)	Product ion (m/z)	Transition
Avastin®	Bevacizumab	FTFSLDTSK	523.263664	335.192511	Y ₃ ⁺
Avastin®	Bevacizumab	FTFSLDTSK	523.263664	450.219454	Y ₄ ⁺
Avastin®	Bevacizumab	FTFSLDTSK	523.263664	563.303518	Y ₅ ⁺
Avastin®	Bevacizumab	FTFSLDTSK	523.263664	650.335546	Y ₆ ⁺
Avastin®	Bevacizumab	FTFSLDTSK	523.263664	797.40396	Y ₇ ⁺
Erbitux®	Cetuximab	YASESISGIPSR	633.819866	1032.53201	Y ₁₀ ⁺
Erbitux®	Cetuximab	YASESISGIPSR	633.819866	1103.56913	Y ₁₁ ⁺
Erbitux®	Cetuximab	YASESISGIPSR	633.819866	816.457393	Y ₈ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	630.288202	b ₅ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	816.367515	b ₆ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	460.266679	Y ₃ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	597.325591	Y ₄ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	710.409655	Y ₅ ⁺
Herceptin®	Trastuzumab	DTYIHWVR	545.27744	873.472983	Y ₆ ⁺
Herceptin®	Trastuzumab	FTISADTSK	485.248014	450.219454	Y ₄ ⁺
Herceptin®	Trastuzumab	FTISADTSK	485.248014	521.256568	Y ₅ ⁺
Herceptin®	Trastuzumab	FTISADTSK	485.248014	608.288596	Y ₆ ⁺
Herceptin®	Trastuzumab	FTISADTSK	485.248014	822.420339	Y ₈ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)VQLQQPGAELVKPGASVK	980.5467	1252.726	Y ₁₃ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)VQLQQPGAELVKPGASVK	980.5467	1155.6732	Y ₁₂ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)VQLQQPGAELVKPGASVK	980.5467	1027.6146	Y ₁₀ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)VQLQQPGAELVKPGASVK	980.5467	558.3246	Y ₆ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)IVLSQSPAILSASPGEK	904.4936	1156.6208	Y ₁₂ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)IVLSQSPAILSASPGEK	904.4936	1069.5888	Y ₁₁ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)IVLSQSPAILSASPGEK	904.4936	788.4149	Y ₈ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)IVLSQSPAILSASPGEK	904.4936	675.3308	Y ₇ ⁺
Herceptin®	Trastuzumab	Q(pyroglu)IVLSQSPAILSASPGEK	904.4936	430.2296	Y ₄ ⁺
Humira®	Adalimumab	APYTFGQGTK	535.269281	637.330401	Y ₆ ⁺
Humira®	Adalimumab	APYTFGQGTK	535.269281	738.37808	Y ₇ ⁺
Humira®	Adalimumab	APYTFGQGTK	535.269281	901.441408	Y ₈ ⁺
Humira®	Adalimumab	APYTFGQGTK	535.269281	998.494172	Y ₉ ⁺
Keytruda®	Pembrolizumab	DLPLTFGGGTK	553.298038	419.224873	Y ₅ ⁺
Keytruda®	Pembrolizumab	DLPLTFGGGTK	553.298038	566.293287	Y ₆ ⁺
Keytruda®	Pembrolizumab	DLPLTFGGGTK	553.298038	780.42503	Y ₈ ⁺
Keytruda®	Pembrolizumab	DLPLTFGGGTK	553.298038	877.477794	Y ₉ ⁺
Mabthera®	Rituximab	FSGSGSGTSYSLTISR	803.889009	1084.56331	Y ₁₀ ⁺
Mabthera®	Rituximab	FSGSGSGTSYSLTISR	803.889009	839.462144	Y ₇ ⁺
Mabthera®	Rituximab	FSGSGSGTSYSLTISR	803.889009	926.494172	Y ₈ ⁺
Mabthera®	Rituximab	FSGSGSGTSYSLTISR	803.889009	1027.54185	Y ₉ ⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	661.308946	Y ₁₁ ²⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	746.36171	Y ₁₃ ²⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	785.387539	Y ₆ ⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	872.419567	Y ₇ ⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	986.462495	Y ₈ ⁺
Opdivo®	Nivolumab	ASGITFSNSGMHWVR	550.599946	1073.49452	Y ₉ ⁺
Remicade®	Infliximab	DILLTQSPAILSVPGER	948.525472	1125.62625	Y ₁₁ ⁺
Remicade®	Infliximab	DILLTQSPAILSVPGER	948.525472	731.368243	Y ₇ ⁺
Remicade®	Infliximab	DILLTQSPAILSVPGER	948.525472	957.536371	Y ₉ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	1257.61099	Y ₁₁ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	1158.54258	Y ₁₀ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	1057.4949	Y ₉ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	910.426487	Y ₈ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	797.342423	Y ₇ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	710.310394	Y ₆ ⁺
Yervoy®	Ipilimumab	GLEWVTFISYDGNNK	871.922851	547.247065	Y ₅ ⁺

STAKT01_V03



The product is intended for research use only. Not for diagnostic or therapeutic use.