

Product Information

Quick Start Workflow

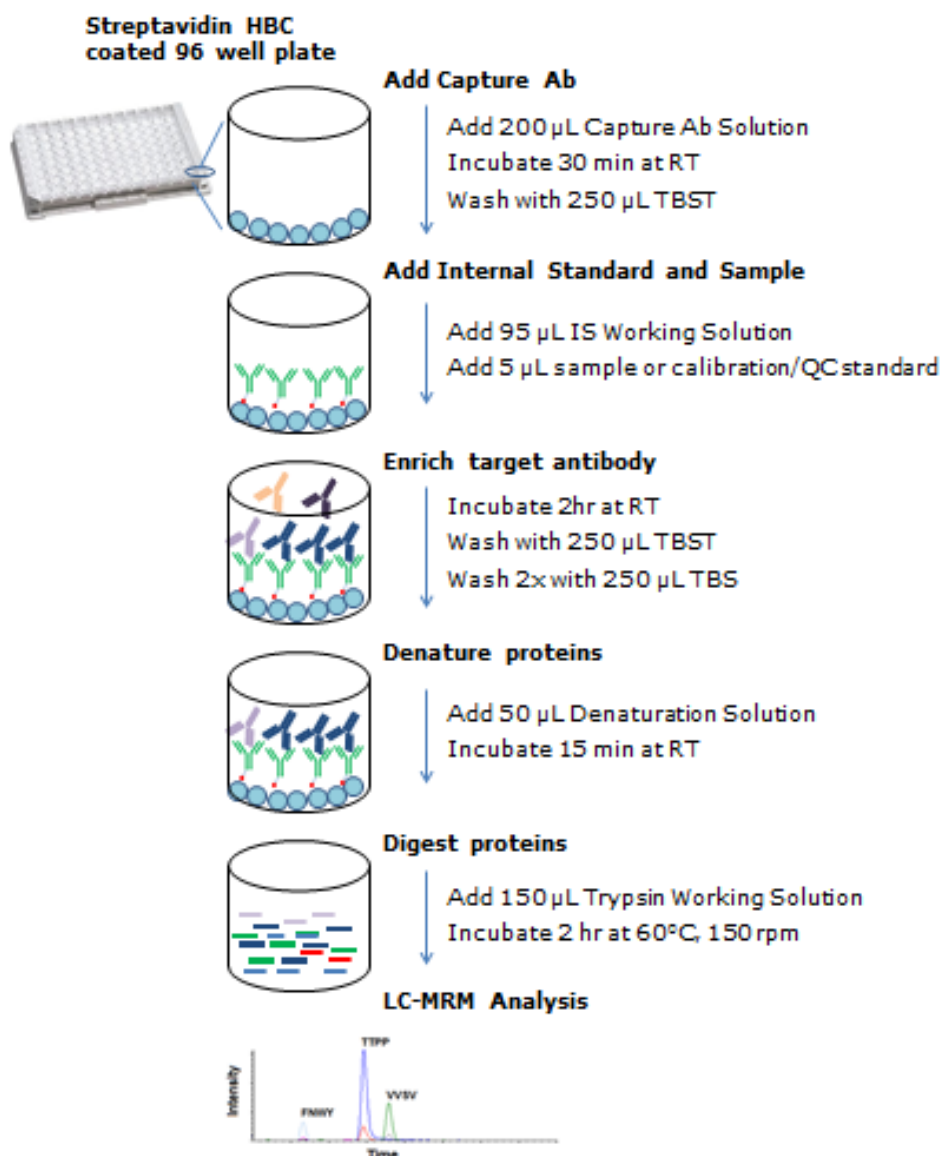
SILu™MAb K1 Pharmacokinetic Kit

Catalog Number **MSKT0001**

Product Description

This kit enables high-throughput quantification of human IgG1 antibody in animal sera by LC-MS/MS in less than five hours. All critical reagents necessary to perform the assay are provided in the kit. Kit components and solution preparations are listed on back of this card.

Note: More detailed technical information can be found on MSKT0001 product page at sigmaaldrich.com/MSKT0001. It is highly recommended to completely read and understand detailed technical information if this is the first time using this kit.



Store the kit at 2–8 °C. The kit is stable for two years.

Components

Product Description	Catalog Number	Quantity
Streptavidin High Binding Capacity Coated Plates	S2577	1 plate
Anti-Human IgG antibody (biotinylated capture antibody)	SAB204908	1 mL
SILuMAB K1 Stable-Isotope Labeled Universal Monoclonal Antibody (internal standard)	MSQC6	100 µg
SOLu-Trypsin	EMS0004	4 × 100 µL (1 mg/mL)
MS Denaturation Solution	EMS0010	10 mL
Rapid Trypsin Digestion Buffer	EMS0009	30 mL
Tris Buffered Saline with TWEEN® 20 (TBST) powder, pH 8.0	T9039	1 packet
Tris Buffered Saline (TBS) powder, pH 8.0	T6664	1 packet
EZ-Pierce™ plate seal	Z721581	4 films

Reagents Required but Not Provided.

- 88–91% Formic acid (Catalog Number 399388)
- LC-MS grade water (Catalog Number 1.15333)
- Acetonitrile (Catalog Number 1.00029)

Equipment Required but Not Provided.

- LC column, such as BioShell A160, 0.5 mm × 10 cm × 2.7 µm (Catalog Number 67096-U)
- Precision single-channel pipettors certified to deliver 2 µL to 1 mL volumes
- Precision multichannel pipettors certified to deliver 5 µL to 250 µL volumes
- Orbital shaker, such as Barnstead Thermolyne AROS 160 Adjustable Reciprocating Orbital Shaker
- Thermomixer, such as Eppendorf Thermomixer C
- LC-MS/MS system, such as Sciex 5500

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

SILu is a trademark of Sigma-Aldrich Co. LLC.
TWEEN is a registered trademark of Croda International PLC.
EZ-Pierce is a trademark of Excel Scientific, Inc.
U.S. patents pending

Preparation Instructions

Note: Briefly centrifuge all small reagent vials prior to use.

TBST Solution – Add contents of one package (T9039) to 1 L of ultrapure water.

TBS Solution – Add contents of one package (T6664) to 1 L of ultrapure water.

Capture Antibody Solution – Add 900 µL of Biotinylated Anti-Human IgG (SAB204908) to 21.6 mL of TBST Solution.

Internal Standard (IS) Stock Solution – Add 500 µL of 0.1% formic acid to MSQC6 to make 200 µg/mL IS solution. Vortex and let sit at room temperature for 15 minutes to fully dissolve. Add 10 µL of IS solution to 990 µL of ultrapure water (2 µg/mL).

Internal Standard (IS) Working Solution – Add 500 µL of 2 µg/mL IS Stock Solution further to 9 mL of TBS Solution.

Trypsin Working Solution – Mix 400 µL of SOLu-Trypsin (EMS0004) with 14.6 mL of Rapid Trypsin Digestion Buffer (EMS0009).

Preparation of Standards and QC Samples – Create a calibration curve within validated linear range of 0.1–12.5 µg/mL (Tables 1 and 2). Create standard stock by diluting antibody of interest to 25 µg/mL.

Table 1. Suggested Dilution for Calibration Standards

	Conc. (ng/mL)	Blank Plasma (µL)	Spiked (µL)	Spiking solution (µL)	Final volume (µL)
Stock	25000	–	–	–	–
H	12500	30	30	Stock	30
G	6250	30	30	H	30
F	3125	30	30	G	30
E	1562.5	30	30	F	30
D	781.25	30	30	E	30
C	390.25	30	30	D	30
B	195.3	30	30	C	30
A	97.7	30	30	B	60

Table 2. Suggested Dilution for QC standards

	Conc. (ng/mL)	Blank Plasma (µL)	Spiked (µL)	Spiking solution (µL)	Final volume (µL)
Stock	25,000	–	–	–	–
QC H	10,000	75	50	Stock	115
QC-M	1,000	90	10	QC-H	75
QC-L	250	75	25	QC-M	100

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