

MRM Qualification Kit

Product Information



Warning! CHEMICAL HAZARD. Before handling any chemicals read the safety data sheet (SDS). Always follow the safety precautions (wearing appropriate protective eyewear, clothing, gloves, etc.) presented in each SDS. SDSs may be found at www.absciex.com.

The MRM Qualification Kit comprises a set of peptides useful for benchmarking your LC-MS system. Each kit contains a vial of approximately 100 ng each of twelve peptides. Add 100 μ l of Peptide Dilution Solution to the peptide vial to create a stock solution. A 1 in 100 dilution with mobile phase A of this solution should generate a typical chromatogram shown in Fig 1. A Data acquisition template can be downloaded from the file called **Peptide MRM.xls** from the following web site:
www.absciex.com/Downloads/Software-Downloads

Initial LC/MS/MS MRM Settings

The suggested LC/MS/MS MRM settings presented here are recommended for analyzing samples with the AB SCIEX 4000 QTRAP® System or API 4000™ LC/MS/MS System. These settings provide a starting point for developing the optimal settings for your system.

Importing MRM Method

This procedure provides a starting point for developing the optimal settings for your samples and system.

1. Open the Excel file named **Peptide MRM.xls**.
2. Copy and paste the contents directly into the MRM page of a new acquisition file.
3. Make sure the MS parameters are setup as described in Table 1-1.
4. Setup the LC parameters as shown in Table 1-3.



Table 1-1. MS parameters

Q1	Q3	Time	ID	DP	CE	CXP
479.2	499.3	10	2B6.PEPTIDE4.2y5	55	22	15
479.2	614.3	10	2B6.PEPTIDE4.2y6	55	22	15
479.2	727.4	10	2B6.PEPTIDE4.2y7	55	22	15
548.3	566.3	10	2B6.PEPTIDE5.2y4	60	35	15
548.3	681.3	10	2B6.PEPTIDE5.2y5	60	23	15
548.3	911.4	10	2B6.PEPTIDE5.2y7	60	23	15
421.2	508.4	10	2B6.PEPTIDE6.2y4	70	23	15
421.2	607.3	10	2B6.PEPTIDE6.2y5	70	22	15
421.2	694.4	10	2B6.PEPTIDE6.2y6	70	24	15
439.7	532.3	10	3A4.PEPTIDE7.2y4n	50	21	15
439.7	549.3	10	3A4.PEPTIDE7.2y4	50	21	15
439.7	650.4	10	3A4.PEPTIDE7.2y5	50	21	15
564.3	689.4	10	3A4.PEPTIDE8.3y13	60	23	15
564.3	745.9	10	3A4.PEPTIDE8.3y14	60	23	15
564.3	789.5	10	3A4.PEPTIDE8.3y15	60	23	15
798.4	819.4	10	3A4.PEPTIDE9.3y7	80	28	15
798.4	932.5	10	3A4.PEPTIDE9.3y8	80	29	19
798.4	1003.5	10	3A4.PEPTIDE9.3y9	80	29	19
432.7	636.4	10	1A2.PEPTIDE 1.2y6	55	20	20
432.7	535.3	10	1A2.PEPTIDE 1.2y5	55	20	20
432.7	294.2	10	1A2.PEPTIDE 1.2y2	55	30	19
528.7	614.4	10	1A2.PEPTIDE 2.2y5	70	26	15
528.7	501.2	10	1A2.PEPTIDE 2.2y4	70	27	15
528.7	727.4	10	1A2.PEPTIDE 2.2y6	70	25	15
536.3	795.4	10	1A2.PEPTIDE 3.2y7	70	26	18
536.3	584.3	10	1A2.PEPTIDE 3.2y5	70	32	18
536.3	698.4	10	1A2.PEPTIDE 3.2y6	70	35	18
469.5	494.3	10	3A5.PEPTIDE10.2y4	55	25	12
469.5	608.3	10	3A5.PEPTIDE10.2y5	55	21	15
469.5	721.4	10	3A5.PEPTIDE10.2y6	55	19	15
468.3	735.5	10	3A5.PEPTIDE11.2y7	55	20	15
468.3	678.5	10	3A5.PEPTIDE11.2y6	55	22	15
468.3	581.4	10	3A5.PEPTIDE11.2y5	55	28	15
589.1	646.5	10	3A5.PEPTIDE12.3y11d	60	20	15
589.1	696	10	3A5.PEPTIDE12.3y12d	60	21	15
589.1	745.5	10	3A5.PEPTIDE12.3y6	60	19	15

Table 1-2 Suggested mobile phases A and B

	Deionized Water	HPLC-Grade Acetonitrile	Formic Acid
Mobile Phase A	98%	2%	0.1%
Mobile Phase B	2%	98%	0.1%

Table 1-3 Suggested gradient time and percent mobile phase B for LC/MS

Time	Flow Rate (µL/min)	% Mobile Phase B
0.1	700	5
8	700	25
11	700	90
12	700	90
13	700	5
15	700	5

Table 1-4 Suggested source parameters

4000 QTRAP® System

Parameters	Settings
CUR	25
CAD	High
IS	4000
TEM	650
GS1	55
GS2	60
ihe	ON

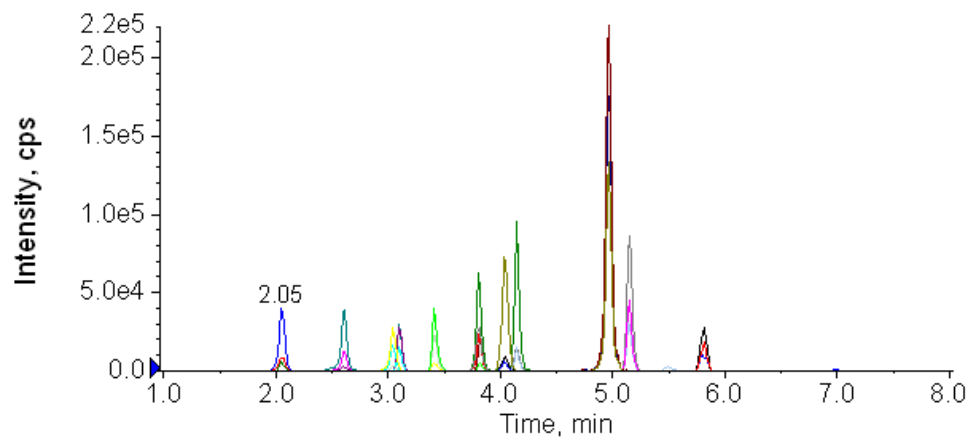


Figure 1. Typical LC-MS chromatogram of peptide standards