

测试报告

样品信息			
样品名称	化妆水	编号	SHZ-20230422-001
样品重量	/	剂型	/
收样日期	2023/04/21	测试期间	2023/04/21-2023/04/24
样品描述	/		
测试需求			
测试成分	曲安西龙、泼尼松龙、泼尼松、异氟泼尼松、氢化可的松、可的松、甲基泼尼松、倍他米松、地塞米松、氟米松		
参考标准			
参考标准	化妆品安全技术规范（2015版）	标样	有
仪器信息			
测试仪器	高效液相色谱串联质谱仪	仪器型号	Xevo TQ-S micro

● 色谱条件:

色谱柱:	月旭 Xtimate® UHPLC C18 2.1×150mm, 1.8μm		
流动相:	时间	流动相 A: (水) %	流动相 B: (乙腈) %
	0.00	95	5
	24.00	15	85
	26.00	15	85
	27.00	95	5
31.00	95	5	
柱温:	40 °C		
流速:	0.3 mL/min		
进样量:	5 μL		
注意事项	本次测试采用基质曲线。		



● 流动相的配置：

流动相 A：纯化水

流动相 B：乙腈

● 质谱条件：

离子源：ESI

检测方式：MRM

干燥气：氮气，450°C，流速：1000 L/Hr

碰撞气：氦气

离子喷雾电压：3.0 kV

名称	母离子 (m/z)	子离子 (m/z)	Cone (V)	Collisio26n (V)	Polarity
曲安西龙	395.2	225.1	34	20	Positive
		357.2		14	
泼尼松龙	361.2	147.1	32	22	Positive
		343.2		8	
泼尼松	359.2	91.0	40	60	Positive
		147.1		20	
		341.2		10	
异氟泼尼松	379.2	341.2	28	10	Positive
		359.2		8	
氢化可的松	363.2	97.0	40	40	Positive
		121.0		28	
可的松	361.2	77.0	52	76	Positive
		91.0		60	
		121.0		38	
甲基泼尼松	375.2	161.1	28	20	Positive
		357.2		10	
倍他米松	393.2	147.1	36	26	Positive



		355.2		10	
		373.2		8	
地塞米松	393.2	147.2	34	26	Positive
		355.2		10	
		373.2		8	
氟米松	411.2	77.0	38	74	Positive
		121.2		38	
		253.1		16	

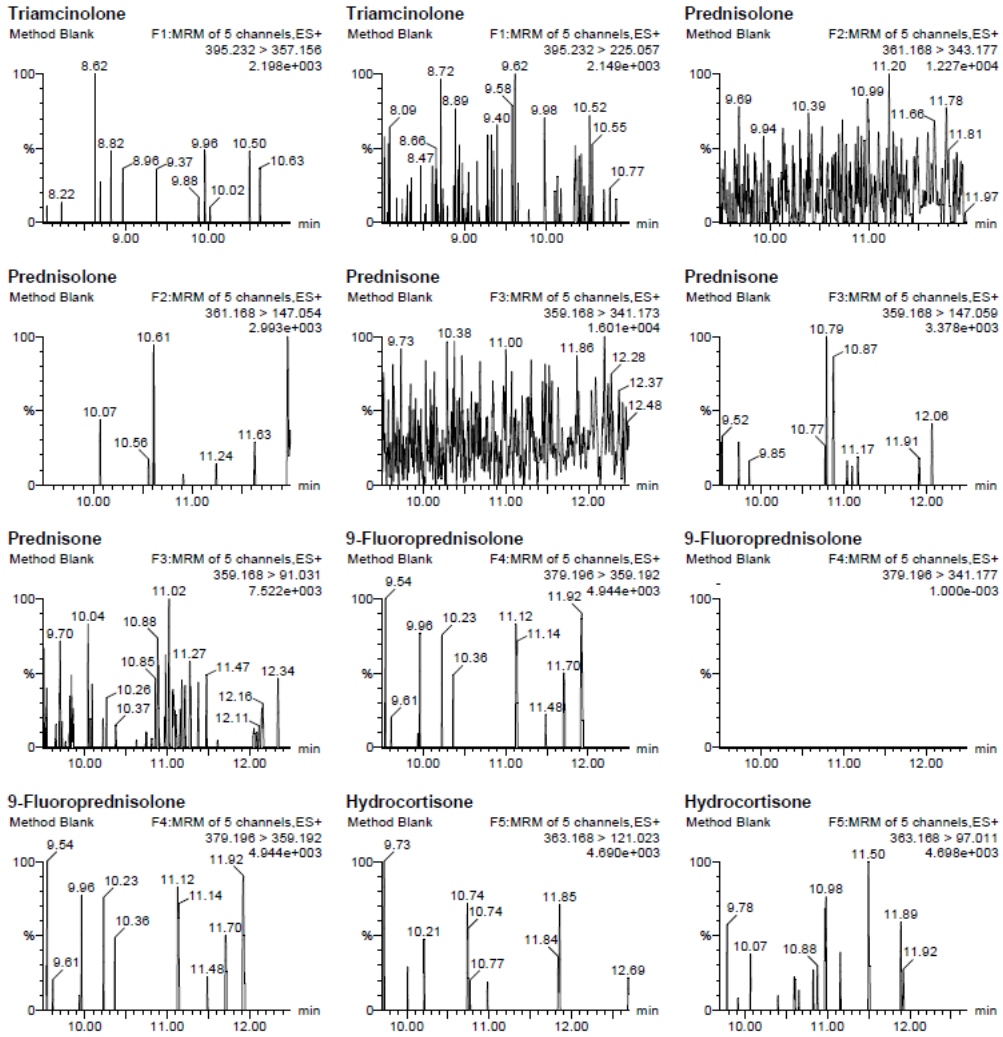
● 样品溶液的配制：

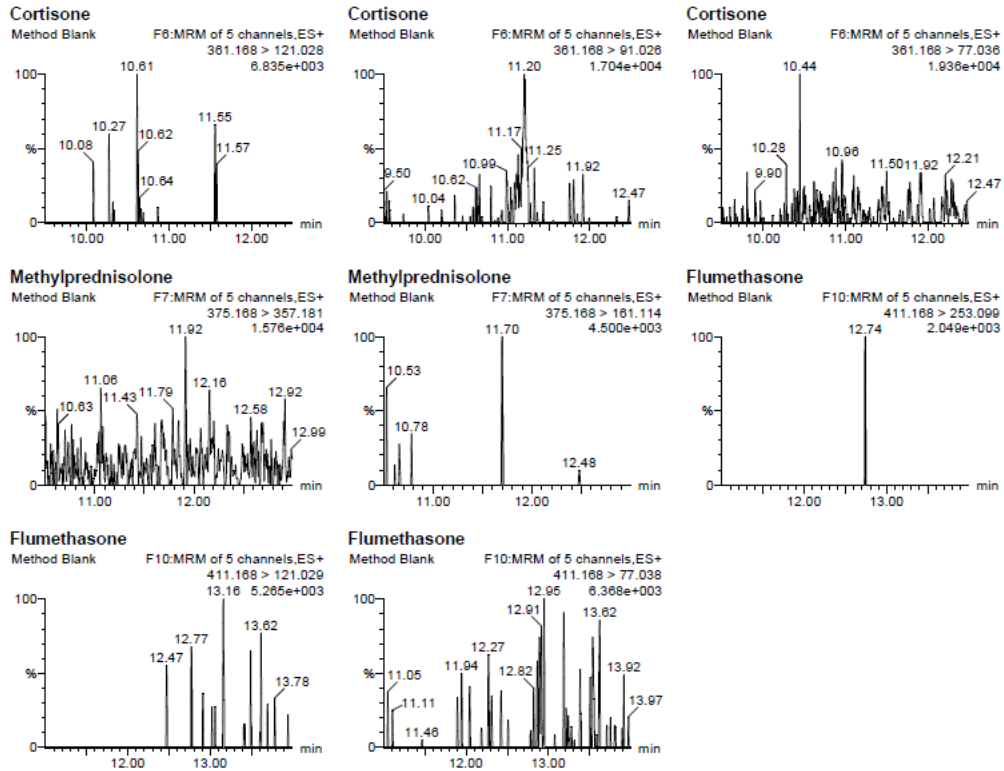
样品溶液：称取 0.2 g 样品，置于 10 mL 具塞比色管中，加入少量乙腈，于涡旋混合仪上振荡 30 s，混合均匀后加乙腈至接近刻度，超声提取 20 min，静置至室温，用乙腈定容至刻度，摇匀，以 4000 r/min 离心 10 min。过滤，取适量上清液用 50 %乙腈溶液稀释，过 0.22 μm 膜，上机分析。

谱图和数据

(1) 空白



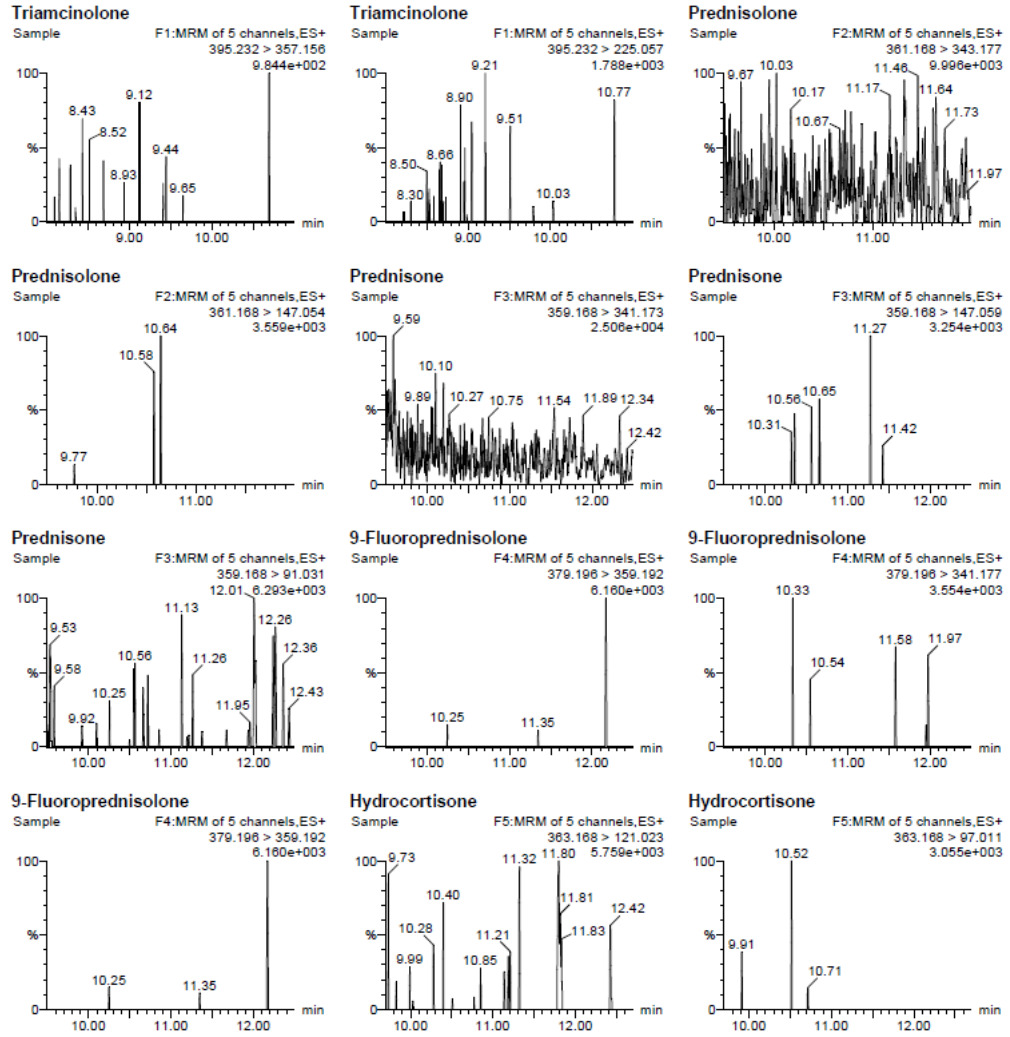


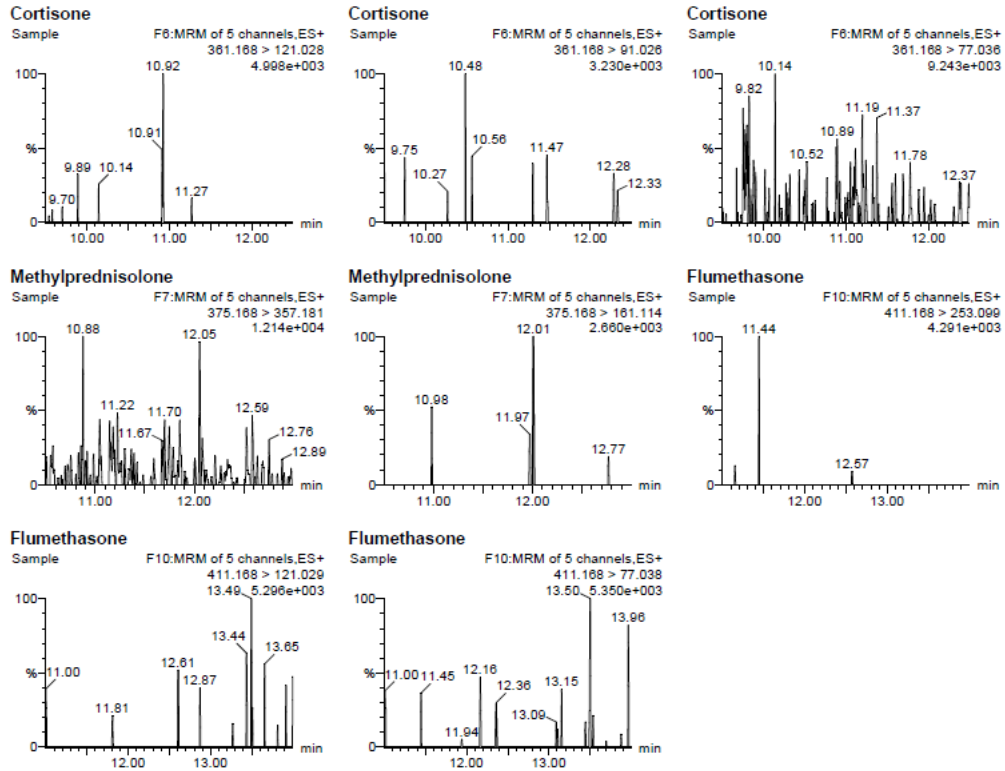


Sample Text	Name	Trace	RT	Area	Primar...	ng/mL	1° Ratio (A...	2° Ratio...	plate a...
Method Blank	Triamcinolone	395.232 ...							
Method Blank	Prednisolone	361.168 ...	10.67	72.186	db	0.013	3.597		56137...
Method Blank	Prednisone	359.168 ...	10.74	26.630	dd	0.009	4.237	3.586	
Method Blank	9-Fluoropred...	379.196 ...							
Method Blank	Hydrocortisone	363.168 ...	10.77	6.584	bb	0.008	0.730		
Method Blank	Cortisone	361.168 ...	10.62	21.450	db	0.042	0.714	0.467	
Method Blank	Methylprednis...	375.168 ...	11.99	22.972	db	0.007	0.458		
Method Blank	Flumethasone	411.168 ...	12.74	19.564	bb	0.009	0.575	2.881	

(2) 样品溶液



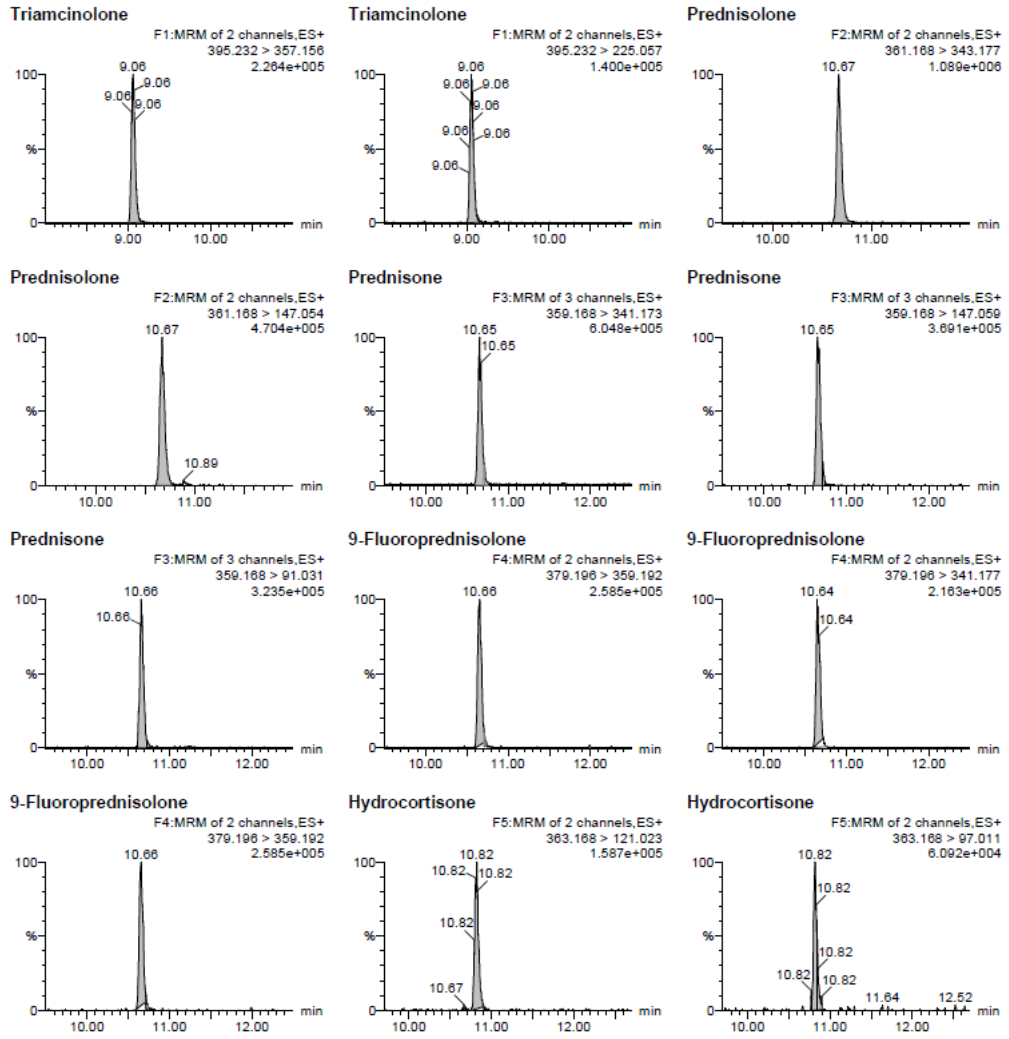


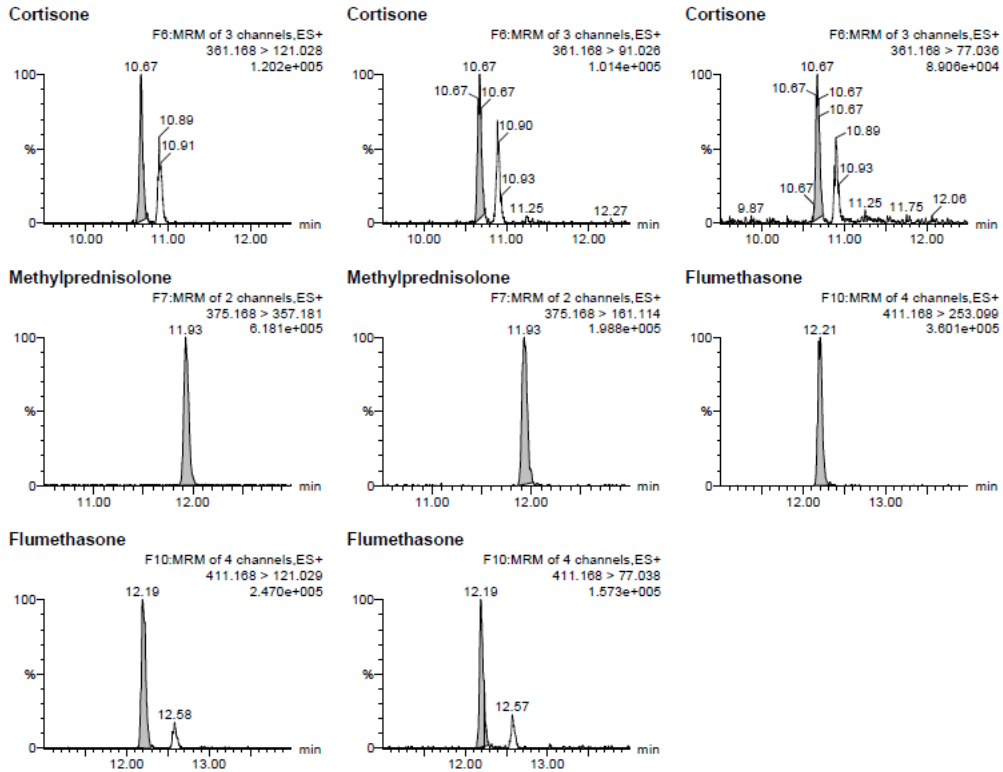


Sample Text	Name	Trace	RT	Area	Primar...	ng/mL	1° Ratio (A...	2° Ratio...	plate a...
Sample	Triamcinolone	395.232 ...	9.12	1.865	bb	0.002	0.661		
Sample	Prednisolone	361.168 ...	10.67	25.653	dd	0.005	1.015		
Sample	Prednisone	359.168 ...	10.73	15.551	db	0.005	1.171	0.724	
Sample	9-Fluoropred...	379.196 ...							
Sample	Hydrocortisone	363.168 ...	10.85	11.254	bb	0.014	3.640		
Sample	Cortisone	361.168 ...							
Sample	Methylprednis...	375.168 ...	12.01	27.267	bb	0.008	0.807		36675...
Sample	Flumethasone	411.168 ...	12.57	3.758	bb	0.002	0.133	0.187	

(3) 10 ng/mL 基质曲线



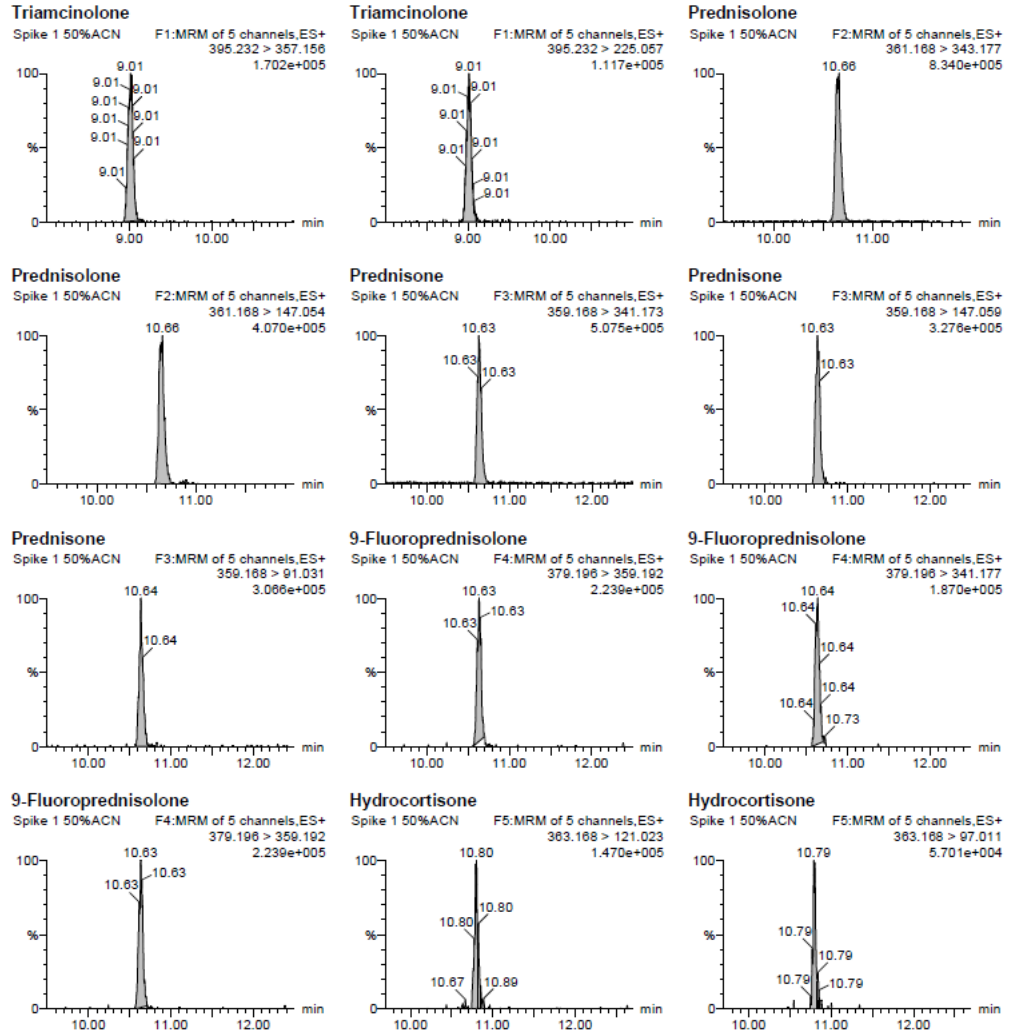




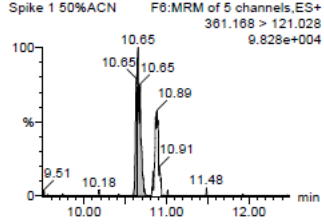
Sample Text	Name	Trace	RT	Area	Primar...	ng/mL	1 ^o Ratio (A...	2 ^o Ratio...	plate a...
Method Spike 50...	Triamcinolone	395.232 ...	9.06	11291.148	MM	10.000	1.663		60313...
Method Spike 50...	Prednisolone	361.168 ...	10.67	54958.703	bd	10.000	2.239		33841...
Method Spike 50...	Prednisone	359.168 ...	10.65	30387.111	MM	10.000	1.464	1.883	21136...
Method Spike 50...	9-Fluoropred...	379.196 ...	10.66	13300.400	MM	10.000	1.313	1.040	43253...
Method Spike 50...	Hydrocortisone	363.168 ...	10.82	7831.729	bb	10.000	2.736		39268...
Method Spike 50...	Cortisone	361.168 ...	10.67	5100.609	MM	10.000	1.049	1.174	13567...
Method Spike 50...	Methylprednis...	375.168 ...	11.93	34027.742	MM	10.000	2.833		21262...
Method Spike 50...	Flumethasone	411.168 ...	12.21	21670.086	bd	10.000	1.456	2.671	30770...

(4) 样品加标,10 ng/mL。

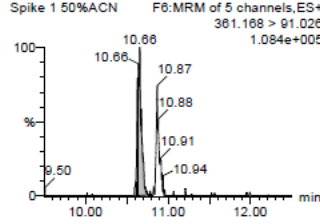




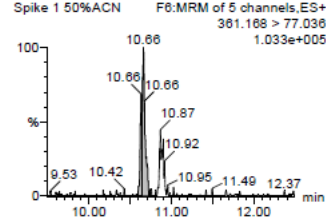
Cortisone



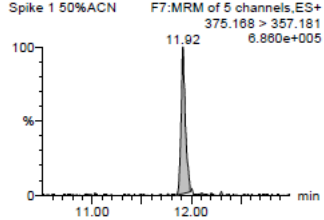
Cortisone



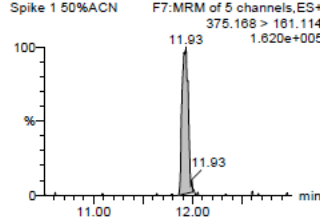
Cortisone



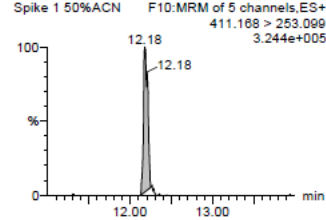
Methylprednisolone



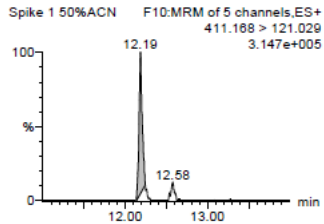
Methylprednisolone



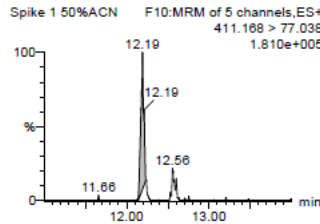
Flumethasone



Flumethasone

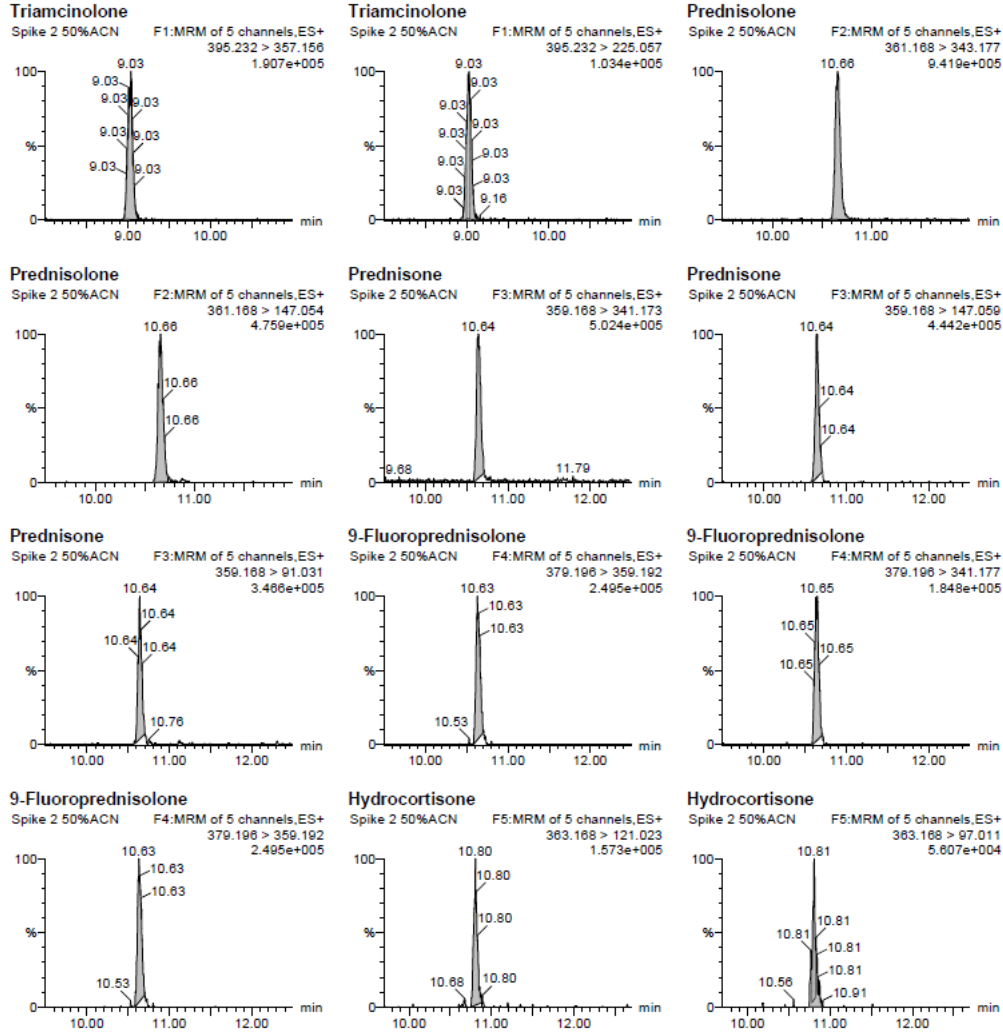


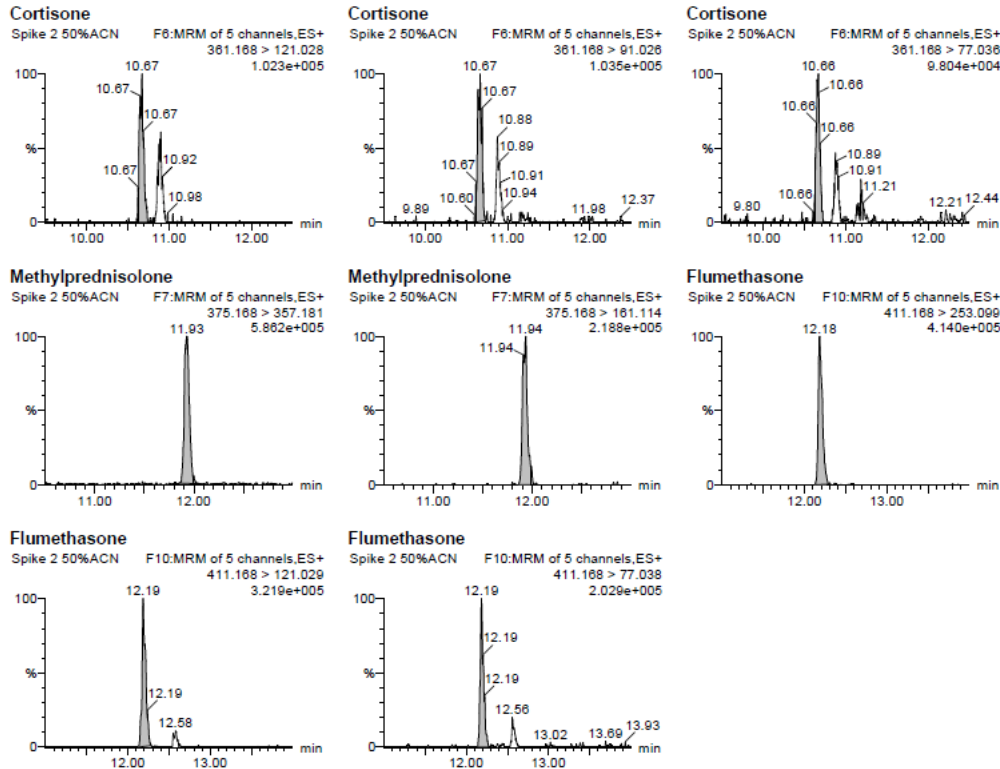
Flumethasone



Sample Text	Name	Trace	RT	Area	Primar...	ng/mL	1° Ratio (A...	2° Ratio...	plate a...
Spike 1 50%ACN	Triamcinolone	395.232 ...	9.01	11605.122	MM	10.278	1.637		37916...
Spike 1 50%ACN	Prednisolone	361.168 ...	10.66	51590.219	bb	9.387	2.088		10453...
Spike 1 50%ACN	Prednisone	359.168 ...	10.63	28197.330	MM	9.279	1.459	1.869	11598...
Spike 1 50%ACN	9-Fluoropred...	379.196 ...	10.63	11046.429	MM	8.305	1.063	0.929	27599...
Spike 1 50%ACN	Hydrocortisone	363.168 ...	10.80	6763.813	MM	8.636	2.901		61605...
Spike 1 50%ACN	Cortisone	361.168 ...	10.65	5514.711	MM	10.812	0.984	1.060	24816...
Spike 1 50%ACN	Methylprednis...	375.168 ...	11.92	32989.422	MM	9.695	2.903		19246...
Spike 1 50%ACN	Flumethasone	411.168 ...	12.18	18467.195	MM	8.522	1.469	2.813	84896...







Sample Text	Name	Trace	RT	Area	Primar...	ng/mL	1 ^o Ratio (A...	2 ^o Ratio...	plate a...
Spike 2 50%ACN	Triamcinolone	395.232 ...	9.03	12348.647	bb	10.937	1.789		68771...
Spike 2 50%ACN	Prednisolone	361.168 ...	10.66	55599.363	bd	10.117	2.108		32422...
Spike 2 50%ACN	Prednisone	359.168 ...	10.64	28448.988	MM	9.362	1.397	1.856	49630...
Spike 2 50%ACN	9-Fluoropred...	379.196 ...	10.63	12739.069	MM	9.578	1.272	1.001	19657...
Spike 2 50%ACN	Hydrocortisone	363.168 ...	10.80	6931.097	MM	8.850	2.642		30887...
Spike 2 50%ACN	Cortisone	361.168 ...	10.67	5548.337	MM	10.878	0.979	1.071	42696...
Spike 2 50%ACN	Methylprednis...	375.168 ...	11.93	34079.895	MM	10.015	2.788		31475...
Spike 2 50%ACN	Flumethasone	411.168 ...	12.18	22683.039	MM	10.467	1.452	2.600	11629...

● 结论：

使用月旭 Xtimate® UHPLC C18 2.1×150mm，1.8μm 检测化妆水中曲安西龙、泼尼松龙、泼尼松、异氟泼尼松、氢化可的松、可的松、甲基泼尼松、氟米松回收率为 106.1%、97.5%、93.2%、89.4%、87.4%、108.5%、98.5%、94.9%，样品回收率满足要求。

日期：2023/05/04

