Supplementary material

Analysis of Glucocorticoids as Potential Adulterants in Cosmetic Products: A Dual Approach for Qualitative and Quantitative Evaluation Based on ELISA and HPLC-MS Methods

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Table S1. List of ingredients of the cosmetic products (A, B and Serum).

Product	Ingredients
Cream A	Calendula officinalis mother tincture, Cardiospermum halicacabum mother tincture, Echinacea angustifolia mother tincture, Lauroyl macrogolglycerides, Ethylene glycol monopalmitostearate, Polyoxyl stearate, Diethylene glycol monoethyl ether, medium chain triglycerides, Dehydroacetic acid, Benzoic acid, Sorbic acid, Benzyl alcohol, Phenoxyethanol, Tetrasodium EDTA, Sodium hydroxide, Purified water.
Cream B	propylene glycol, self-emulsifying glyceryl monostearate, glyceryl monostearate, cetostearyl alcohol, mixture of natural paraffins and waxes, chlorocresol, sodium citrate, citric acid, purified water
Serum	Water, Pvp, Butylene Glycol, Propylene Glycol, Apigenin, Biotinoyl Tripeptide-1, Butylparaben, Carbomer, Ethylparaben, Hydrolyzed Keratin, Laminaria Digitata Extract, Lecithin, Oleanolic Acid, Panicum Miliaceum (Millet) Seed Extract, Peg 40 Hydrogenated Castor Oil, Pelvetia Canaliculata Extract, Glycerin, Methylparaben, Disodium Edta, Phenoxyethanol, Ppg-26-Buteth-26, Propylparaben, Triethanolamine, Methylparaben, Xanthan Gum.

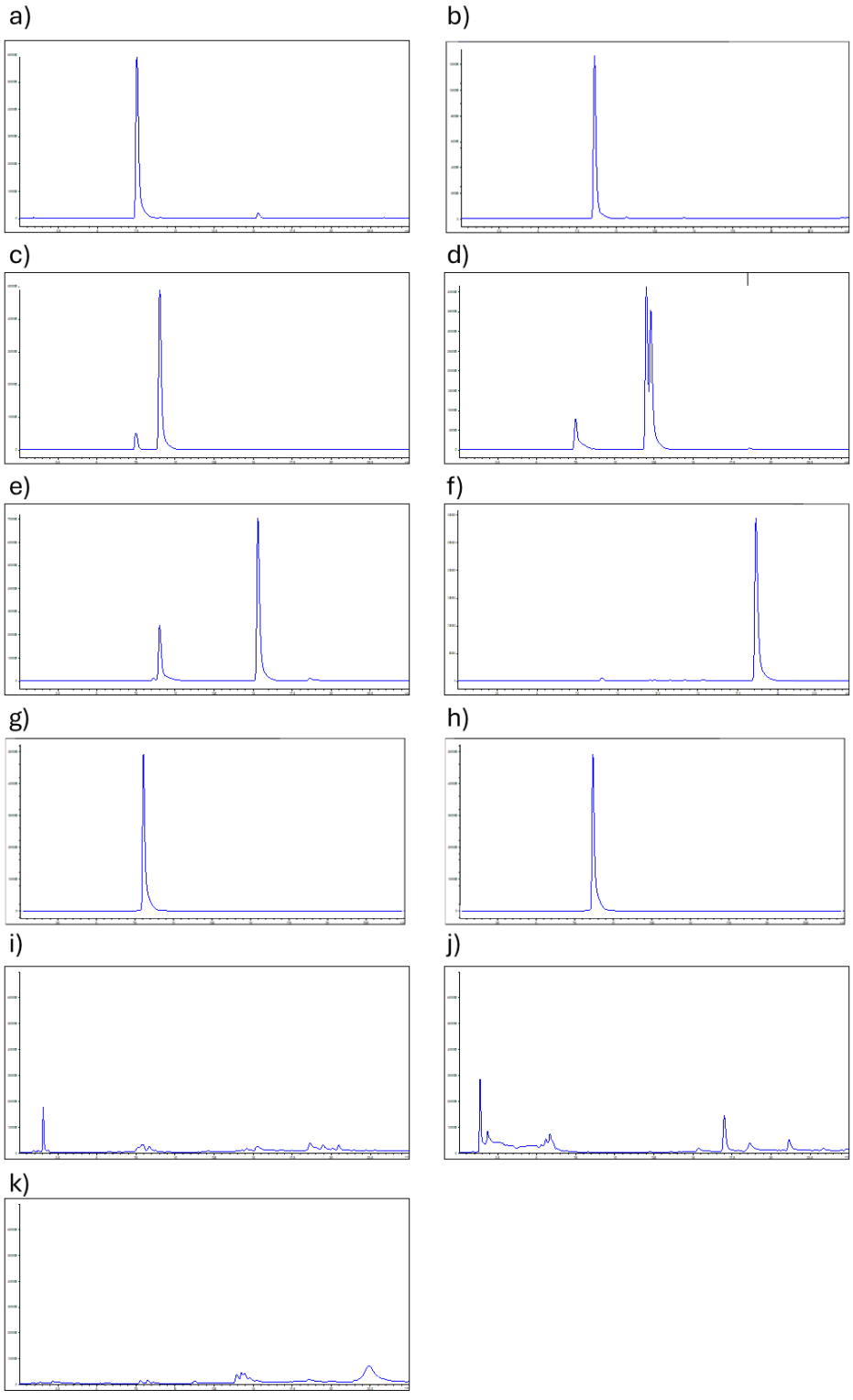

Figure S1. TIC Chromatograms of a) MP; b) BC; c) FN; d) BD; e) BM; f) BCDP; g) FM; h) DM; i) blank cream A; j) blank cream B; k) serum

Table S2. Slope and R^2 obtained for calibration curves generated with standard and spiked solutions in the concentration range 0.1 – 20 ng/ml

Steroid	Standard Solutions		Spiked Cream A		Spiked Cream B		Spiked Serum	
	Slope	R^2	Slope	R^2	Slope	R^2	Slope	R^2
BM	1006060	0.9952	2000000	0.9816	223200	0.9451	350393	0.9628
BC	237918	0.9931	110082	0.8689	136558	0.995	149062	0.9741
BCDP	485413	0.9907	815328	0.9823	815328	0.9823	183322	0.9806
MP	816368	0.9860	1000000	0.9719	261435	0.9836	224248	0.9269
BD	516362	0.9927	798479	0.9804	179243	0.9641	181834	0.9261
FN	645733	0.9906	903391	0.9831	204948	0.9864	217187	0.9712
FM	141472	0.9899	851827	0.9818	98474	0.9734	136468	0.9817
DM	399740	0.9923	793654	0.9871	279614	0.9821	363243	0.9977

Table S3. Precision of the method assessed through multiple intra-day (n=3) and inter-day (n=3) analyses of the spiked samples.

Steroid	Spiked Concentration (μg/ml)	Intra-day precision (CV%)	Inter-day precision (CV%)
BM	0.3	5.86	15.82
	0.5	6.71	12.81
	10	4.89	10.79
	20	7.34	10.21
BC	0.3	21.4	30.96
	0.5	22.29	26.36
	10	25.61	29.22
	20	22.81	24.94
BCDP	0.3	33.37	10.56
	0.5	34.20	10.96
	10	33.57	11.25
	20	36.91	12.36
MP	0.3	4.91	16.90
	0.5	3.82	12.21
	10	3.68	10.20
	20	5.10	9.69
BD	0.3	11.50	7.68
	0.5	9.64	8.74
	10	10.24	8.00
	20	10.40	8.12
FN	0.3	9.15	9.42
	0.5	5.03	7.52
	10	3.04	8.44
	20	7.76	7.42
FM	0.3	3.28	12.92
	0.5	4.76	11.35

	10	4.67	12.65
	20	5.18	11.67
DM	0.3	6.49	11.85
	0.5	5.22	10.23
	10	7.94	12.74
	20	9.32	11.12