

Analytical and Bioanalytical Chemistry

Electronic Supplementary Material

Rapid and reliable steroid hormone profiling in *Tursiops truncatus* blubber using liquid chromatography tandem mass spectrometry (LC-MS/MS)

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Table S1 Calibration standard masses in ng per vial and isotopically labeled internal standard masses (ng) used for the quantitation of steroid hormones in dolphin blubber validation experiments

Steroid	CAL-A	CAL-B	CAL-C	CAL-D	CAL-E	CAL-F	IS
Cortisol	8.89	3.66	1.49	0.84	0.4	0.237	
Cortisone	9.84	5.79	3.11	2.78	1.36	0.821	
11-Deoxycortisol	9.01	4.42	1.8	0.851	0.483	0.24	
Corticosterone	9.45	4.47	1.82	0.892	0.488	0.252	
17-OH-Progesterone	8.88	4.18	1.7	0.839	0.457	0.237	
Testosterone	8.87	4.38	1.78	0.838	0.478	0.236	
Androstenedione	8.92	4.25	1.73	0.843	0.464	0.238	
Progesterone	9.26	3.65	1.48	0.875	0.398	0.247	
Androstenedione- ¹³ C ₃							5.05
Testosterone- ¹³ C ₃							5.51
17-OH-Progesterone- ¹³ C ₃							4.48
Progesterone- ¹³ C ₃							5.26
Cortisol- <i>d</i> ₄							3.79

Table S2 Calibration curves and linear regression information for detected steroids in bottlenose dolphin blubber validation experiments

Analyte	Associated Standard	R ²	Slope (m)	Intercept (b)	Calibrant Range (ng/g)
Cortisol	Cortisol- <i>d</i> ₄	1.00	0.994	0.096	0.84 - 8.89
Cortisone	Cortisol- <i>d</i> ₄	1.00	3.57	-0.073	0.821 - 5.79
11-Deoxycortisol	Cortisol- <i>d</i> ₄	1.00	4.28	-0.055	0.24 - 1.8
Corticosterone	Cortisol- <i>d</i> ₄	1.00	0.452	-0.008	0.252 - 1.82
17-OH-Progesterone	17-OH-Progesterone- ¹³ C ₃	1.00	0.928	0.004	0.237 - 1.7
Testosterone	Testosterone- ¹³ C ₃	1.00	1.30	-0.001	0.236 - 1.78
Androstenedione	Androstenedione- ¹³ C ₃	1.00	0.976	0.035	0.464 - 1.73
Progesterone	Progesterone- ¹³ C ₃	1.00	0.808	-0.006	0.247 - 1.48

Table S3 Calibration standard masses in ng per vial and spike mass (ng) used for the quantitation of accuracy experiments for steroid hormones in dolphin blubber

Steroid (ng)	Cal A	Cal B	Cal C	Cal D	Cal E	Cal F	Spike
11-Deoxycorticosterone	100	5.71	5.00	2.07	0.118	0.104	2.95
11-Deoxycortisol	75.2	8.42	3.75	1.55	0.174	0.0780	4.34
17-OH-Progesterone	110	26.0	5.50	2.28	0.537	0.115	13.4
Androstenedione	9.42	2.65	0.469	0.194	0.0549	0.00977	1.37
Corticosterone	78.0	21.8	3.89	1.61	0.450	0.0809	11.2
Cortisol	87.3	41.6	4.35	1.80	0.860	0.0905	21.4
Cortisone	80.8	9.74	4.03	1.67	0.201	0.0838	5.03
Progesterone	113	22.4	5.62	2.33	0.462	0.117	11.5
Testosterone	251	28.3	12.5	5.18	0.585	0.260	14.6