**Supplemental Table 1.** Calibration and internal standard compound manufacturer, purity information, monitored transitions, retention times, and reporting limits. The first transition (product ion) listed for each analyte is the quantitative transition, while the second transition was used for qualitative identity confirmation. Observed reporting limits (RLobs) are defined as the lowest calibration standard used in the calculation of the standard curve. Calculated reporting limits (RLcalc) are calculated as three times the standard deviation of the blank measurements plus the mean of the blank measurements

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Analyte** | **Manufacturer** | **Stated Purity** | **Precursor Ion** (m/z) | **Product Ion** (m/z) | **Retention Time**(min) | **RLobs** | **RLcalc** |
| Progesterone | SA | ≥ 99 % | 314.7 | 109.2 | 13.5 | 5.703 | 7.959 |
| 97.2 |
| 17-Hydroxyprogesterone | SA | ≥ 95 % | 331 | 97.2 | 8.9 | 0.5390 | - |
| 109.2 |
| Androstenedione | S | ≥ 98 % | 287.1 | 97.2 | 11.8 | 0.009 843 | 0.2568 |
| 109.2 |
| Testosterone | SA | ≥ 98 % | 288.9 | 109.2 | 9.2 | 0.7743 | - |
| 97.1 |
| Estrone | SA | ≥ 99 % | 504.5a | 171.3a | 181.7 | NQ | NQ |
| 440.1a |
| Estradiol | SA | ≥ 98 % | 506.2a | 170.9a | 13 | NQ | NQ |
| 442.3a |
| Cortisol | SA | ≥ 98 % | 363.2 | 121.3 | 16 | 0.09133 | 0.1907 |
| 267.3 |
| Cortisone | SA | ≥ 98 % | 361.1 | 163.3 | 12.4 | 0.1109 | 0.09296 |
| 121.3 |
| 11-Deoxycortisol | S | 99.10% | 347.3 | 109.2 | 20.5 | NQ | NQ |
| 97 |
| Corticosterone | SA | ≥ 98.5 % | 347.3 | 135 | 20.1 | NQ | NQ |
| 121 |
| 11-Deoxycorticosterone | S | ≥ 98 % | 331.1 | 97.1 | 22.3 | NQ | NQ |
| 109.2 |
| Progesterone-13C3 | CI | 98% | 318.3 | 100 | 13.5 | IS |
| 112.1 |
| 17-Hydroxyprogesterone- 13C3 | C | 99.99% | 334.1 | 112.1 | 8.9 | IS |
| 100 |
| Androstenedione-13C3 | C | 99.99% | 290.2 | 100.3 | 11.8 | IS |
| 112.2 |
| Testosterone-13C3 | C | 99.9 9% | 292.1 | 112 | 9.2 | IS |
| 100 |
| Estradiol-13C3 | C | 99.99% | 509.4a | 170.9a | 13 | IS |
| NAb |
| Cortisol-*d4* | C | 99.99% | 367.3 | 121.2 | 16 | IS |
| 271.5 |
| Cortisone-13C3 | SA | 98% | 364.2 | 166.5 | 12.4 | IS |
| 124.1 |

SA = Sigma Aldrich (St. Louis, MO, USA); S = Steraloids (Newport, RI, USA); CI = Cambridge Isotopes (Tewksbury, MA, USA); C = Cerilliant (Round Rock, TX, USA)

a These are the dansyl chloride-derivatized values

b No suitable secondary fragment was identified for E2-13C3 (i.e., intensities of potential secondary transitions were poor under instrumental parameters utilized)

- = Negative value

NQ = not quantified in this study

IS = internal standard (no reporting limit)

**Supplemental Table 2.** Calibration curve information for St. Andrew Bay blubber hormone analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hormone** | **Mass Range**(ng) | **Intercept** | **Slope** | **R2** |
| Progesterone | 274.0 - 5.703 | -0.001 600 | 0.004 000 | 0.998 |
| 17-Hydroxyprogesterone | 25.77 - 0.5390 | 0.01790 | 0.3762 | 0.987 |
| Androstenedione | 22.89 - 0.009 843 | -0.01010 | 0.8551 | 0.998 |
| Testosterone | 16.52 - 0.7743 | 0.0023 00 | 0.2121 | 1.000 |
| Cortisol | 4.413 - 0.09133 | -0.01280 | 1.286 | 0.997 |
| Cortisone | 2.208 - 0.1109 | -0.03550 | 7.806 | 0.999 |