Supplementary Material for

# Adipophilin and perilipin-3 levels in human breast milk correlate with the total lipid content

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**Supplemental Table 1: Calibration parameters in matrix-matched solution**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Peptide | LOD (nM) | LOQ (nM) | Linear range (nM) | Slope | Intercept | *R2* | *R2* norm |
| DSVASTITGVMDK | 1.583 | 4.796 | 5-400 | 122.766 | 633.893 | 0.977 | 0.994 |
| EVSDSLLTSSK | 1.049 | 3.178 | 5-400 | 261.882 | 1731.352 | 0.992 | 1.000 |
| DTVATQLSEAVDATR | 1.597 | 4.840 | 5-400 | 83.927 | 818.088 | 0.980 | 0.997 |

LOD, limit of detection; LOQ, limit of quantification; R2, Pearson Coefficient of Determination; R2 norm, Coefficient of Determination after adjusting for native peptide.

**Supplemental Table 2: SRM assay library for positive ion detection mode**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Peptide Name** | **ISTD1** | **Precursor Ion** | **Product Ion** | **ColisionEnergy(V)** | **RetentionTime (min)** |
| **DSVASTITGVMDK.heavy** | **Yes** | **666.3** | **1030.5** | **26.2** | **13.8** |
| DSVASTITGVMDK.heavy | Yes | 666.3 | 959.5 | 26.2 | 13.8 |
| DSVASTITGVMDK.heavy | Yes | 666.3 | 658.3 | 26.2 | 13.8 |
| DSVASTITGVMDK.heavy | Yes | 666.3 | 302.1 | 26.2 | 13.8 |
| DSVASTITGVMDK.heavy | Yes | 666.3 | 203.1 | 26.2 | 13.8 |
| **DSVASTITGVMDK.light** | **No** | **662.3** | **1022.5** | **26.2** | **13.8** |
| DSVASTITGVMDK.light | No | 662.3 | 951.5 | 26.2 | 13.8 |
| DSVASTITGVMDK.light | No | 662.3 | 650.3 | 26.2 | 13.8 |
| DSVASTITGVMDK.light | No | 662.3 | 302.1 | 26.2 | 13.8 |
| DSVASTITGVMDK.light | No | 662.3 | 203.1 | 26.2 | 13.8 |
| **DTVATQLSEAVDATR.heavy** | **Yes** | **793.9** | **971.5** | **29.8** | **14** |
| DTVATQLSEAVDATR.heavy | Yes | 793.9 | 858.4 | 29.8 | 14 |
| DTVATQLSEAVDATR.heavy | Yes | 793.9 | 642.4 | 29.8 | 14 |
| DTVATQLSEAVDATR.heavy | Yes | 793.9 | 472.2 | 29.8 | 14 |
| DTVATQLSEAVDATR.heavy | Yes | 793.9 | 217.1 | 29.8 | 14 |
| **DTVATQLSEAVDATR.light** | **No** | **788.9** | **961.5** | **29.8** | **14** |
| DTVATQLSEAVDATR.light | No | 788.9 | 848.4 | 29.8 | 14 |
| DTVATQLSEAVDATR.light | No | 788.9 | 632.3 | 29.8 | 14 |
| DTVATQLSEAVDATR.light | No | 788.9 | 462.2 | 29.8 | 14 |
| DTVATQLSEAVDATR.light | No | 788.9 | 217.1 | 29.8 | 14 |
| **EVSDSLLTSSK.heavy** | **Yes** | **587.3** | **945.5** | **23.9** | **7.3** |
| EVSDSLLTSSK.heavy | Yes | 587.3 | 543.3 | 23.9 | 7.3 |
| EVSDSLLTSSK.heavy | Yes | 587.3 | 430.2 | 23.9 | 7.3 |
| EVSDSLLTSSK.heavy | Yes | 587.3 | 329.2 | 23.9 | 7.3 |
| EVSDSLLTSSK.heavy | Yes | 587.3 | 242.2 | 23.9 | 7.3 |
| **EVSDSLLTSSK.light** | **No** | **583.3** | **937.5** | **23.9** | **7.3** |
| EVSDSLLTSSK.light | No | 583.3 | 535.3 | 23.9 | 7.3 |
| EVSDSLLTSSK.light | No | 583.3 | 422.2 | 23.9 | 7.3 |
| EVSDSLLTSSK.light | No | 583.3 | 321.2 | 23.9 | 7.3 |
| EVSDSLLTSSK.light | No | 583.3 | 234.1 | 23.9 | 7.3 |
| **IATSLDGFDVASVQQQR.heavy** | **Yes** | **923** | **1359.7** | **33.8** | **14.1** |
| IATSLDGFDVASVQQQR.heavy | Yes | 923 | 1040.5 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.heavy | Yes | 923 | 826.4 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.heavy | Yes | 923 | 755.4 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.heavy | Yes | 923 | 569.3 | 33.8 | 14.1 |
| **IATSLDGFDVASVQQQR.light** | **No** | **918** | **1349.6** | **33.8** | **14.1** |
| IATSLDGFDVASVQQQR.light | No | 918 | 1030.5 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.light | No | 918 | 816.4 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.light | No | 918 | 745.4 | 33.8 | 14.1 |
| IATSLDGFDVASVQQQR.light | No | 918 | 559.3 | 33.8 | 14.1 |
| **SELLVEQYLPLTEEELEK.heavy** | **Yes** | **724** | **1095.6** | **21.3** | **21.7** |
| SELLVEQYLPLTEEELEK.heavy | Yes | 724 | 962.5 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.heavy | Yes | 724 | 885.4 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.heavy | Yes | 724 | 548.3 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.heavy | Yes | 724 | 443.3 | 21.3 | 21.7 |
| **SELLVEQYLPLTEEELEK.light** | **No** | **721.4** | **1087.6** | **21.3** | **21.7** |
| SELLVEQYLPLTEEELEK.light | No | 721.4 | 962.5 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.light | No | 721.4 | 877.4 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.light | No | 721.4 | 544.3 | 21.3 | 21.7 |
| SELLVEQYLPLTEEELEK.light | No | 721.4 | 443.3 | 21.3 | 21.7 |

*Additional instrument settings for Agilent 6495 QqQ were positive polarity,* *fragmentor = 380 V, cell accelerator voltage = 5 V and retention time window = 3.5 min. The quantification SRM transitions are in bold.*

*1Internal standard*

**Supplemental Figure 1: Matrix matched calibration curves**

*The correlation between standard peptides concentrations in the breast milk and their responses. Calibration curves of TQL peptides after trypsin digestion (heavy standard) (1) and after normalization on native peptide (light) (2).*

**Supplemental Figure 2: Trypsin digestion optimization**