

**Table S1.** Dried blood spot acylcarnitine profile measured using tandem mass spectrometry in the patient before and after riboflavin treatment.

| <b>Acylcarnitine</b>           | <b>Before (μM)</b> | <b>After (μM)</b> | <b>Normal Range<br/>(0~5 years old)</b> |
|--------------------------------|--------------------|-------------------|-----------------------------------------|
|                                | 2009.09.07         | 2011.05.17        |                                         |
| Acetylcarnitine (C2)           | 35.44              | 21.34             | 14.3                                    |
| Butyrylcarnitine (C4)          | 0.9                | 0.49              | 0.4                                     |
| Hexanoylcarnitine (C6)         | 1.03               | 0.4               | 0.185                                   |
| Octanoylcarnitine (C8:1)       | 0.16               | 0.19              | 0.244                                   |
| Decanoylcarnitine (C10:1)      | 0.34               | 0.26              | 0.151                                   |
| Dodecanoylcarnitine (C12)      | 0.75               | 0.42              | 0.297                                   |
| Tetradecenoylcarnitine (C14)   | 0.82               | 0.51              | 0.31                                    |
| Tetradecenoylcarnitine (C14:1) | 0.96               | 0.34              | 0.192                                   |
| Palmitoylcarnitine (C16)       | 1.82               | 1.06              | 1.936                                   |
| Stearyl carnitine (C18)        | 1.38               | 0.68              | 0.825                                   |
| Oleylcarnitine (C18:1)         | 1.94               | 0.93              | 1.221                                   |