**Supplementary data**

Supplementary data Table 1. Model parameters describing the absorption fraction (Fabs) and metabolism (m1 and m2) and compartmental distribution (t12,21,34,43,56,65) of dietary pirimiphos-methyl (PM) in Atlantic salmon (*Salmo salar*). See main text Figure 1 for definition of model parameters. Parameter values after back-transformation (inverse log = exponential).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model parameters | Fabs  | m1 | m2 | t12 | t21 | t34 | t43 | t56 | t65 |
| Estimated | 0.0239 | 0.032 | 0.0037 | 0.0030 | 0.0030 | 0.0017 | 0.0054 | 0.0002 | 0.0360 |
| lower 95% confidence interval | 0.029 | 0.0295 | 0.0025 | 0.0021 | 0.0021 | 0.0000 | 0.0001 | 0.000 | 0.0010 |
| higher 95% confidence interval | 0.0247 | 0.0353 | 0.0064 | 0.0044 | 0.0044 | 0.1234 | 0.2795 | 0.0069 | 0.9356 |

Supplementary data Table 2. Model parameters with a pre-set, fixed, high absorption (Fabs =0.20) metabolism (m1 and m2), compartmental distribution (t12, 21,34,43,56,65), and excretion (e1,2,3) of dietary pirimiphos-methyl (PM) in Atlantic salmon (*Salmo salar*). See main text Figure 1 for definition of model parameters. Parameter values after back-transformation (inverse log = exponential)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| model parameters | m1 | m2 | t12 | t21 | t34 | t43 | t56 | t65 | e1 | e2 | e3 |
| Estimated | 0.2937 | 0.0562 | 0.0076 | 0.0054 | 0.0008 | 0.0076 | 0.008 | 0.0076 | 0.1679 | 0.1679 | 0.1679 |
| lower 95% confidence interval | 0.1852 | 0.0218 | 0.0018 | 0.0000 | 0.0002 | 0.0018 | 0.002 | 0.0018 | 0.1398 | 0.1398 | 0.1398 |
| higher 95% confidence interval | 0.4758 | 0.1283 | 0.0323 | 0.4477 | 0.0032 | 0.0323 | 0.0323 | 0.0323 | 0.1967 | 0.1967 | 0.1967 |

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Supplementary data Figure 1. Model-predicted total fillet concentration (nmol) (even line) with a fixed high absorption (20%) compared to experimental data (three broken lines for the three different experimental tanks) for PM and the two metabolites (2-DAMP and Desethyl-PM) in the fillet and adipose tissue (fat) from Atlantic salmon fed PM-spiked feed (5 mg kg-1) in triplicate tanks for 81 days followed by a 39 day depuration period.