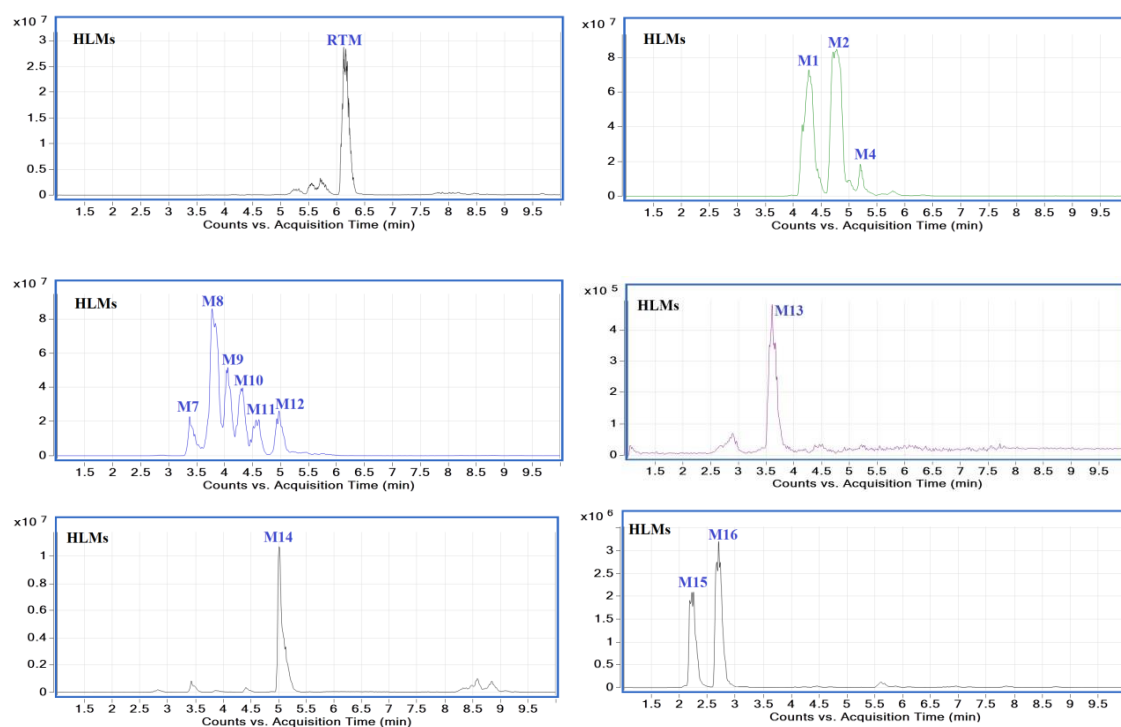


**Figure S1** Chemical structures of the pleuromutilins



**Figure S2** Accurate extracted ion chromatograms (EICs) of retapamulin and its metabolites after incubation with human liver microsomes.

**Table S3** Summary of metabolites of RTP detected in *in vivo* and *in vitro*

NO.	Description	Composition	[M+H] <sup>+</sup> ( <i>m/z</i> )	Error (ppm)	Corresponding mass errors (ppm)
M0	RTP	C <sub>30</sub> H <sub>48</sub> NO <sub>4</sub> S <sup>+</sup>	518.32986	0.40	0.77
M1	8 $\alpha$ -OH-RTP	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.06	0.11
M2	RTP+O	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.12	0.22
M3	RTP+O	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.43	0.80
M4	RTP+O	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.51	0.95
M5	RTP+O	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.36	0.67
M6	Sulfoxide RTP	C <sub>30</sub> H <sub>48</sub> NO <sub>5</sub> S <sup>+</sup>	534.32477	0.34	0.64
M7	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.32	0.58
M8	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.32	0.58
M9	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.41	0.75
M10	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.52	0.94
M11	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.36	0.65
M12	RTP+2O	C <sub>30</sub> H <sub>48</sub> NO <sub>6</sub> S <sup>+</sup>	550.31969	0.07	0.13
M13	RTP+3O	C <sub>30</sub> H <sub>48</sub> NO <sub>7</sub> S <sup>+</sup>	566.31460	0.51	0.90
M14	N-deethyl-RTP	C <sub>29</sub> H <sub>46</sub> NO <sub>4</sub> S <sup>+</sup>	504.31421	0.03	0.06
M15	N-deethyl-RTP+O	C <sub>29</sub> H <sub>46</sub> NO <sub>5</sub> S <sup>+</sup>	520.30912	0.02	0.04
M16	N-deethyl-RTP+O	C <sub>29</sub> H <sub>46</sub> NO <sub>5</sub> S <sup>+</sup>	520.30912	0.04	0.08

The [M+H]<sup>+</sup> (*m/z*) values were calculated from the proposed structural formulae. The Error (ppm) is the difference between the calculated and observed *m/z* values.