

## Supplemental Data (Tables/Figures)

### Tables

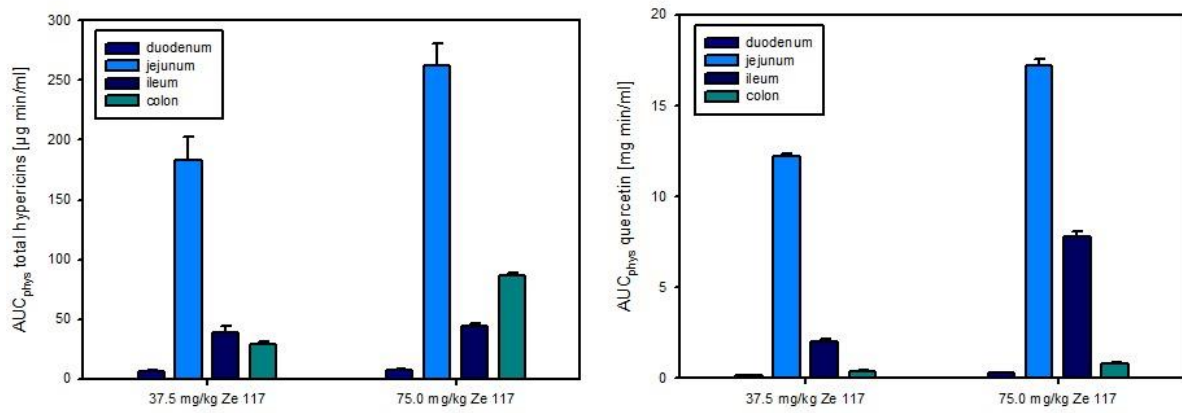
**Table A1:** pH dependent thermodynamic solubility of naphthodianthrones in buffer media of different pH values after 48 hours, values are given as average of saturation concentration  $\pm$  SEM (n=3).

<b>pH value</b>	<b>hypericin (<math>\mu\text{g/mL}</math>)</b>	<b>pseudohypericin (<math>\mu\text{g/mL}</math>)</b>	<b>total naphthodianthrones (<math>\mu\text{g/mL}</math>)</b>
1.2	4.61 $\pm$ 0.03	3.92 $\pm$ 0.06	8.52 $\pm$ 0.09
2.2	6.92 $\pm$ 0.03	5.33 $\pm$ 0.02	12.25 $\pm$ 0.05
3.2	12.01 $\pm$ 0.16	7.45 $\pm$ 0.18	19.45 $\pm$ 0.34
4.5	17.75 $\pm$ 0.31	9.59 $\pm$ 0.13	27.34 $\pm$ 0.44
5.5	20.73 $\pm$ 0.18	9.84 $\pm$ 0.07	30.57 $\pm$ 0.25
6.8	23.78 $\pm$ 0.43	6.67 $\pm$ 0.04	30.50 $\pm$ 0.47
7.5	19.23 $\pm$ 0.34	2.97 $\pm$ 0.14	22.20 $\pm$ 0.48

**Table A2:** pH dependent thermodynamic solubility of flavonoids in buffer media of different pH values after 48 hours, values are given as average of saturation concentration  $\pm$  SEM (n=3).

<b>pH value</b>	<b>rutin (mg/mL)</b>	<b>hyperoside (mg/mL)</b>	<b>Isoquercitroside (mg/mL)</b>	<b>quercitroside (mg/mL)</b>	<b>quercetin (mg/mL)</b>	<b>biapigenin (mg/mL)</b>	<b>total flavonoids (mg/mL)</b>
1.2	1.58 $\pm$ 0.03	1.79 $\pm$ 0.03	0.66 $\pm$ 0.01	0.19 $\pm$ 0.00	0.61 $\pm$ 0.01	0.02 $\pm$ 0.00	4.86 $\pm$ 0.08
2.2	2.03 $\pm$ 0.44	2.41 $\pm$ 0.52	0.86 $\pm$ 0.18	0.26 $\pm$ 0.06	0.56 $\pm$ 0.12	0.03 $\pm$ 0.00	6.14 $\pm$ 1.33
3.2	1.67 $\pm$ 0.04	2.00 $\pm$ 0.04	0.71 $\pm$ 0.01	0.21 $\pm$ 0.00	0.44 $\pm$ 0.01	0.02 $\pm$ 0.00	5.06 $\pm$ 0.11
4.5	1.78 $\pm$ 0.06	2.20 $\pm$ 0.04	1.20 $\pm$ 0.42	0.23 $\pm$ 0.01	0.48 $\pm$ 0.02	0.01 $\pm$ 0.01	5.90 $\pm$ 0.37
5.5	1.64 $\pm$ 0.01	1.98 $\pm$ 0.01	0.70 $\pm$ 0.00	0.22 $\pm$ 0.00	0.40 $\pm$ 0.01	0.02 $\pm$ 0.00	4.96 $\pm$ 0.04
6.8	1.69 $\pm$ 0.05	2.02 $\pm$ 0.07	0.72 $\pm$ 0.02	0.25 $\pm$ 0.01	0.28 $\pm$ 0.20	0.04 $\pm$ 0.00	4.79 $\pm$ 0.16
7.5	1.62 $\pm$ 0.02	1.94 $\pm$ 0.03	0.69 $\pm$ 0.01	0.27 $\pm$ 0.00	0.50 $\pm$ 0.00	0.05 $\pm$ 0.00	4.56 $\pm$ 0.06

**Figure A1**



**Figure A1:** AUC of hypericin and pseudohypericin calculated as hypericin (left) and AUC of quercetin (right) in plasma related to human transit time and intestinal length, values are given as average  $\pm$  SEM (n=3-4)

Figure A2

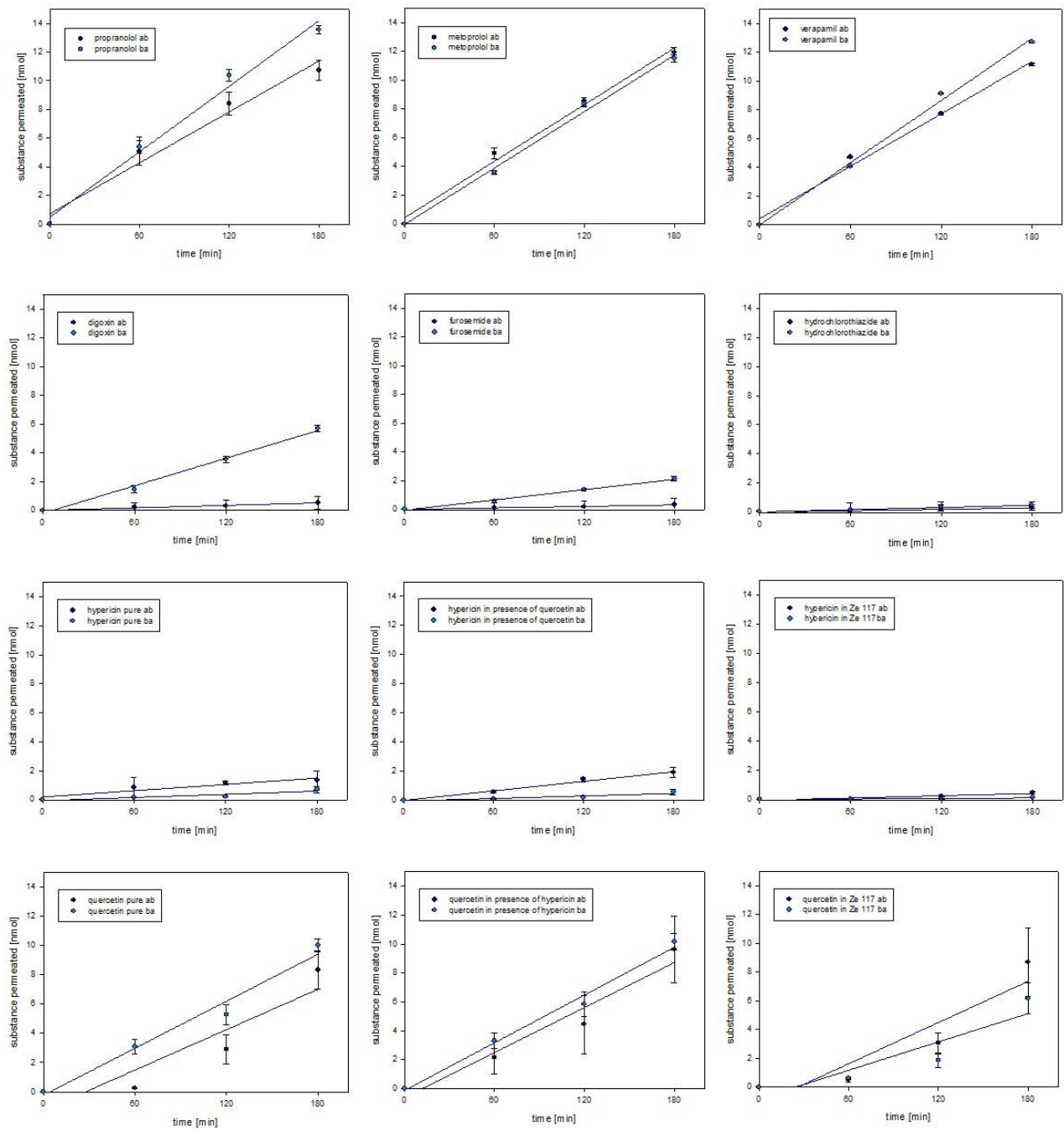
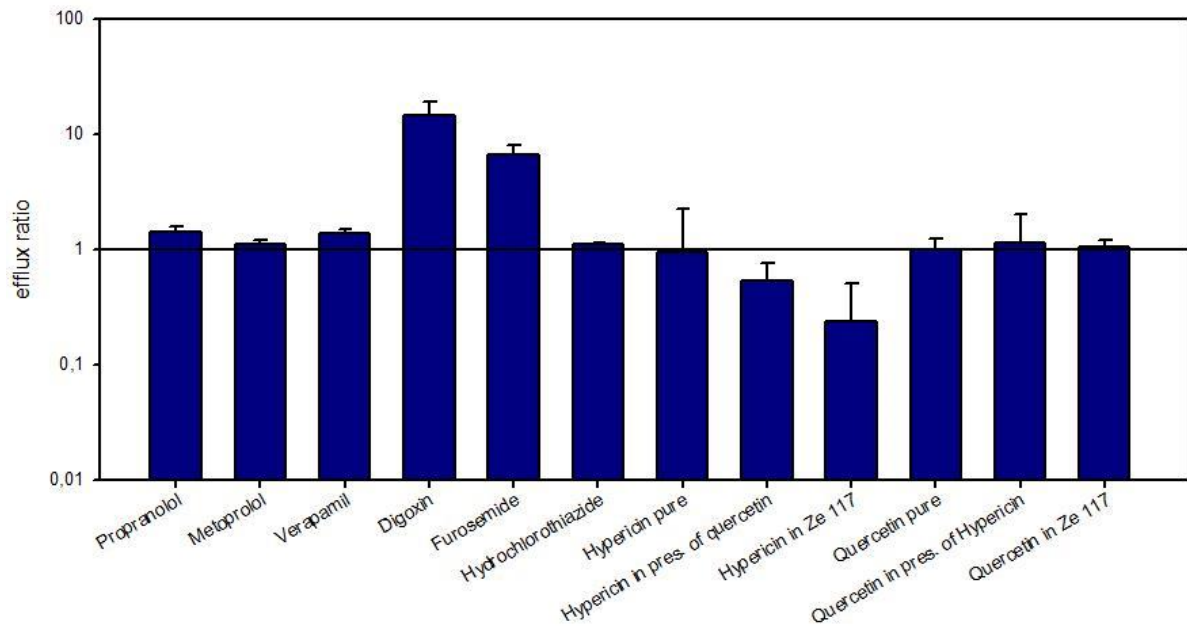


Figure A2: Efflux ratio RE of reference substances as well as hypericin and quercetin as analytical marker substances of Ze 117 through Caco-2 cell monolayers in logarithmic scaling, values are given as average  $\pm$  SEM (n=6-9)

**Figure A3**



**Figure A3:** Mass transfer of reference substances as well as hypericin and quercetin as analytical marker substances of Ze 117 through Caco-2 cell monolayers as function of time, values are given as average  $\pm$  SEM (n=6-9)