

UV-B filter octylmethoxycinnamate is a modulator of the serotonin and histamine receptors in human umbilical arteries

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Supplementary Material

Table S1 Basal tension of the human umbilical artery (HUA)-rings exposed to octylmethoxycinnamate (OMC, 0.001–50 $\mu\text{mol/L}$) after an incubation with OMC (0, 1, 10 and 50 $\mu\text{mol/L}$). Values are presented as mean of the basal tension \pm S.E.M

OMC ($\mu\text{mol/L}$)	Basal Tension of OMC (mN)			
	Without incubation	Incubation of 1 $\mu\text{mol/L}$	Incubation of 10	Incubation of 50
	(n=7)	(n=12)	$\mu\text{mol/L}$ (n=7)	$\mu\text{mol/L}$ (n=12)
0.001	-0.40 ± 0.29	0.17 ± 0.16	0.13 ± 0.16	0.11 ± 0.27
0.01	-0.17 ± 0.27	-0.10 ± 0.21	0.17 ± 0.26	-0.42 ± 0.17
0.1	-0.22 ± 0.25	-0.19 ± 0.28	-0.03 ± 0.36	-0.68 ± 0.19
1	-0.36 ± 0.33	-0.13 ± 0.32	0.20 ± 0.38	-1.33 ± 0.32
10	-0.32 ± 0.29	-0.28 ± 0.37	-0.08 ± 0.50	-1.26 ± 0.29
50	-0.28 ± 0.34	-0.02 ± 0.43	-0.16 ± 0.62	-1.42 ± 0.34

Table S2 Tension in human umbilical artery (HUA)-rings incubated with octylmethoxycinnamate (OMC) contracted by the L69 (5-HT_{1B/D} agonist; 1 $\mu\text{mol/L}$). The contractile dual effect is represented by responsive and unresponsive HUA-rings. Each value represents the mean of the tensions \pm S.E.M. and the n is the number within brackets. * Represents significant differences between responsive and unresponsive HUA-rings ($p < 0.05$, Student's t-test)

OMC ($\mu\text{mol/L}$)	Tension of HUA-rings contracted by L69 (mN)	
	Responsive HUA-rings	Unresponsive HUA-rings
0	9.74 ± 0.89 (n=7)	3.39 ± 0.97 (n=9) *
1	17.71 ± 1.58 (n=6)	2.88 ± 1.06 (n=8) *
10	18.56 ± 2.52 (n=8)	3.05 ± 0.68 (n=17) *
50	27.12 ± 4.64 (n=7)	2.94 ± 0.37 (n=26) *

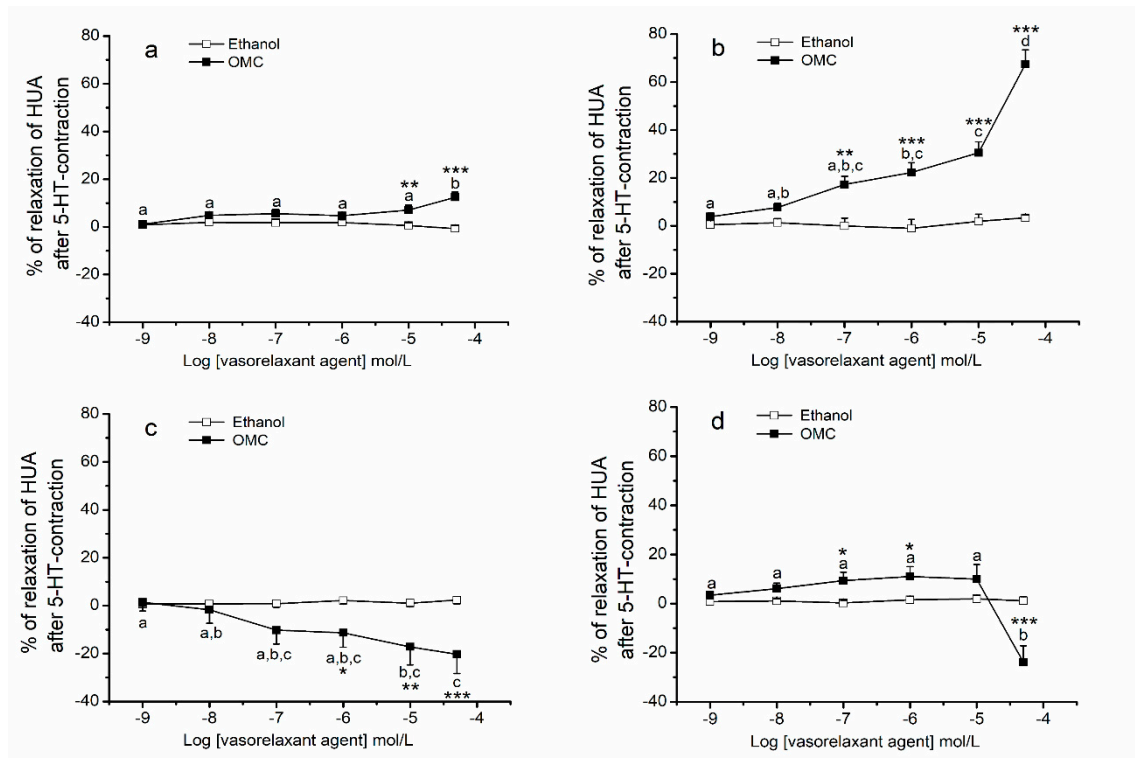


Figure S1 Percentage of relaxation of human umbilical artery (HUA)-rings incubated with (A) 0 $\mu\text{mol/L}$, (B) 1 $\mu\text{mol/L}$, (C) 10 $\mu\text{mol/L}$ and (D) 50 $\mu\text{mol/L}$ of octylmethoxycinnamate (OMC), contracted with serotonin (5-HT; 1 $\mu\text{mol/L}$) and exposed to cumulative concentrations of OMC (0.001 $\mu\text{mol/L}$ -50 $\mu\text{mol/L}$). Each point represents the mean and vertical lines the S.E.M. * Represents a significant difference when compared with the respective solvent control: * ($p < 0.05$), ** ($p < 0.01$), *** ($p < 0.001$); and the different letters represents significant differences between OMC concentrations ($p < 0.05$); two-way ANOVA method followed by Holm-Sidak post-hoc tests

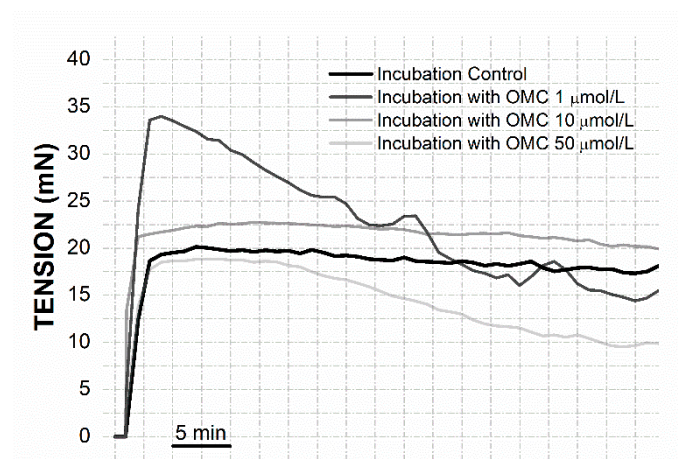
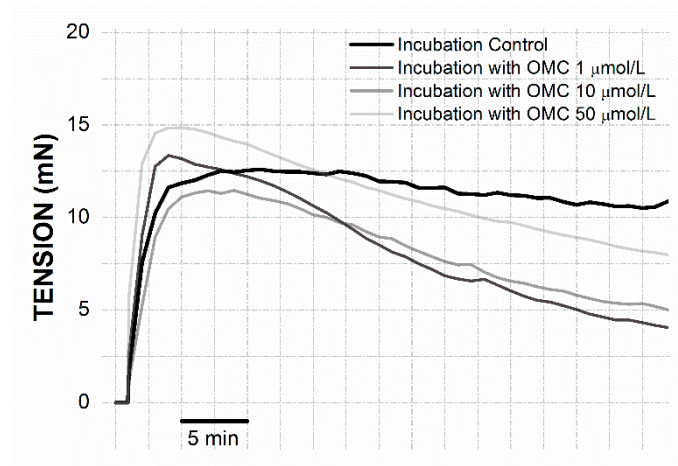


Figure S2 Real tension induced by Histamine (Hist; 10 $\mu\text{mol/L}$) on human umbilical artery (HUA)-rings incubated with different octylmethoxycinnamate (OMC)-concentrations (0, 1, 10 and 50 $\mu\text{mol/L}$). Data are expressed as real tension in grams (g) of at least three different arteries



FigureS3 Real tension induced by Histamine (Hist; 10 μmol/L) after adding cimetidine (Cim, H₂ antagonist, 10 μmol/L) on human umbilical artery (HUA)-rings incubated with different octylmethoxycinnamate (OMC)-concentrations (0, 1, 10 and 50 μmol/L). Data are expressed as real tension in grams (g) of at least three different arteries