Supplementary table 1: Assessment of the effect of outliers on the statistical analysis.

Figure	Comparison	Analysis including the outlier(s)	Analysis excluding the outlier(s)	Impact of outlier(s)
Fig 2: Corticosterone levels				
A	Corticosterone levels in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.294	No outliers were detected	NA
B	Corticosterone levels in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.011	Independent samples *t*-test *n* = 9 animals/group p = 0.002	Conclusion unaffected
Fig 3: Fecal pellet production				
-	Fecal pellet count in treated *vs* untreated mice	Generalized estimating equations, comparison of estimated marginal means *n* = 10 animals/group d1 control *vs* d10 control: p = 0.004 d1 treated *vs* d10 treated: p = 0.048 d1 control *vs* d1 treated: p = 0.078 d10 control *vs* d10 treated: p = 0.159	No outliers were detected	NA
Fig 4: Fecal water content				
A	Fecal pellet weight in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.055	No outliers were detected	NA
B	Fecal water content in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.735	No outliers were detected	NA
C	Correlation between corticosterone levels and fecal water content (single-day treatment)	Pearson's rho *n* = 20 animals r_p = 0.168 - p = 0.478	Pearson's rho *n* = 19 animals r_p = -0.019 - p = 0.939	Conclusion unaffected
D	Fecal pellet weight in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.356	No outliers were detected	NA
E	Fecal water content in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.027	No outliers were detected	NA

F	Correlation between corticosterone levels and fecal water content (multi-day treatment)	Spearman's rho *n* = 19 animals r_s = 0.550 - p = 0.015	No outliers were detected	NA
Fig 5: Paracellular intestinal barrier function				
A	Probe flux for distal colon in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.640	No outliers were detected	NA
B	Probe flux for proximal colon in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.294	No outliers were detected	NA
C	Probe flux for terminal ileum in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.631	Mann-Whitney U test *n* = 9 – 10 animals/group p = 0.209	Conclusions unaffected
D	TEER for distal colon in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.333	No outliers were detected	NA
E	TEER for proximal colon in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.579	Mann-Whitney U test *n* = 9 – 10 animals/group p = 0.356	Conclusions unaffected
F	TEER for terminal ileum in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.234	No outliers were detected	NA
G	Probe flux for distal colon in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.912	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.376	Conclusions unaffected
H	Probe flux for proximal colon in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.805	No outliers were detected	NA
I	Probe flux for terminal ileum in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.315	No outliers were detected	NA
J	TEER for distal colon in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.742	No outliers were detected	NA
K	TEER for proximal colon in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 9 – 10 animals/group p = 0.822	Independent samples *t*-test *n* = 8 – 10 animals/group p = 0.599	Conclusions unaffected

L	TEER for terminal ileum in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.436	Independent samples *t*-test *n* = 9 animals/group p = 0.453	Conclusions unaffected
Fig 6: Correlations between corticosterone levels and intestinal permeability				
A	Correlation between corticosterone levels and probe flux for distal colon (single-day treatment)	Pearson's rho *n* = 20 animals r_p = 0.048 - p = 0.840	No outliers were detected	NA
B	Correlation between corticosterone levels and probe flux for proximal colon (single-day treatment)	Pearson's rho *n* = 20 animals r_p = 0.291 - p = 0.213	No outliers were detected	NA
C	Correlation between corticosterone levels and probe flux for terminal ileum (single-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.023 - p = 0.922	Spearman's rho *n* = 19 animals r_s = -0.050 - p = 0.839	Conclusions unaffected
D	Correlation between corticosterone levels and TEER for distal colon (single-day treatment)	Pearson's rho *n* = 20 animals r_p = 0.099 - p = 0.677	No outliers were detected	NA
E	Correlation between corticosterone levels and TEER for proximal colon (single-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.015 - p = 0.950	No outliers were detected	NA
F	Correlation between corticosterone levels and TEER for terminal ileum (single-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.029 - p = 0.905	No outliers were detected	NA
G	Correlation between corticosterone levels and probe flux for distal colon (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.290 - p = 0.214	Spearman's rho *n* = 19 animals r_s = 0.325 - p = 0.175	Conclusions unaffected
H	Correlation between corticosterone levels and probe flux for proximal colon (multi-day treatment)	Spearman's rho *n* = 19 animals r_s = 0.000 - p = 1.000	No outliers were detected	NA
I	Correlation between corticosterone levels and probe flux for terminal ileum (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.123 - p = 0.607	Spearman's rho *n* = 19 animals r_s = 0.117 - p = 0.635	Conclusions unaffected
J	Correlation between corticosterone levels and TEER for distal colon (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.323 - p = 0.165	No outliers were detected	NA
K	Correlation between corticosterone levels and TEER for proximal colon (multi-day treatment)	Spearman's rho *n* = 19 animals r_s = 0.055 - p = 0.822	No outliers were detected	NA

L	Correlation between corticosterone levels and TEER for terminal ileum (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.083 - p = 0.729	No outliers were detected	NA
Fig 7: LBP levels				
A	LBP concentration in treated *vs* untreated mice (single-day treatment)	Independent samples *t*-test *n* = 20 animals p = 0.329	No outliers were detected	NA
B	Correlation between corticosterone levels and LBP concentration (single-day treatment)	Pearson's rho *n* = 20 animals r_p = 0.402 - p = 0.079	No outliers were detected	NA
C	LBP concentration in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 20 animals p = 0.754	No outliers were detected	NA
D	Correlation between corticosterone levels and LBP concentration (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.181 - p = 0.446	No outliers were detected	NA
Fig 8: Secretory function				
A	Isc for distal colon in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.579	Independent samples *t*-test *n* = 9 – 10animals/group p = 0.886	Conclusion unaffected
B	Isc for proximal colon in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.853	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.673	Conclusion unaffected
C	Isc for terminal ileum in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.436	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.297	Conclusion unaffected
D	Correlation between corticosterone levels and Isc for distal colon (single-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.151 - p = 0.525	Pearson's rho *n* = 19 animals r_p = 0.005 - p = 0.984	Conclusion unaffected
E	Correlation between corticosterone levels and Isc for proximal colon (single-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.166 - p = 0.484	Pearson's rho *n* = 19 animals r_p = 0.028 - p = 0.908	Conclusion unaffected
F	Correlation between corticosterone levels and Isc for terminal ileum (single-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.090 - p = 0.705	Pearson's rho *n* = 19 animals r_p = -0.119 - p = 0.626	Conclusion unaffected
G	Isc for distal colon in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.772	No outliers were detected	NA

H	Isc for proximal colon in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 9 – 10 animals/group p = 0.053	Independent samples *t*-test *n* = 8 – 9 animals/group p = 0.018	Removal of outliers leads to significance instead of a trend
I	Isc for terminal ileum in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.210	Independent samples *t*-test *n* = 9 animals/group p = 810	Conclusion unaffected
J	Correlation between corticosterone levels and Isc for distal colon (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = 0.209 - p = 0.376	No outliers were detected	NA
K	Correlation between corticosterone levels and Isc for proximal colon (multi-day treatment)	Spearman's rho *n* = 19 animals r_s = 0.263 - p = 0.276	Spearman's rho *n* = 18 animals r_s = 0.220 - p = 0.381	Conclusion unaffected
L	Correlation between corticosterone levels and Isc for terminal ileum (multi-day treatment)	Spearman's rho *n* = 20 animals r_s = -0.169 - p = 0.476	Spearman's rho *n* = 18 animals r_s = -0.033 - p = 0.896	Conclusion unaffected
Fig S1: Forskolin response				
A	Forskolin response for distal colon in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.579	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.886	Conclusion unaffected
B	Forskolin response for proximal colon in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.853	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.673	Conclusion unaffected
C	Forskolin response for terminal ileum in treated *vs* untreated mice (single-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.436	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.297	Conclusion unaffected
D	Forskolin response for distal colon in treated *vs* untreated mice (multi-day treatment)	Independent samples *t*-test *n* = 10 animals/group p = 0.962	No outliers were detected	Conclusion unaffected
E	Forskolin response for proximal colon in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 9 – 10 animals/group p = 1.000	Mann-Whitney U test *n* = 9 animals/group p = 0.863	Conclusion unaffected
F	Forskolin response for terminal ileum in treated *vs* untreated mice (multi-day treatment)	Mann-Whitney U test *n* = 10 animals/group p = 0.912	Independent samples *t*-test *n* = 9 – 10 animals/group p = 0.759	Conclusion unaffected

All independent samples *t*-tests were performed with a Welch's correction for unequal variances. Isc, short-circuit current; NA, not applicable; TEER, transepithelial electrical resistance.