

Supplementary files

Figures

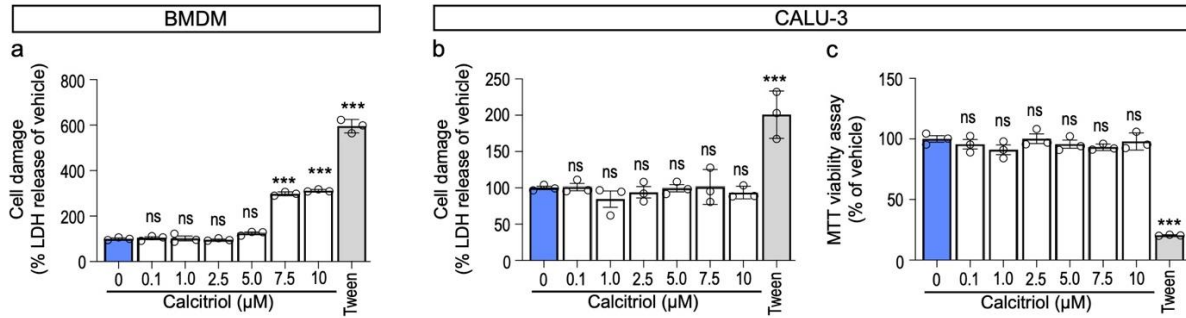


Figure S1: Calcitriol is cytotoxic to uninfected BMDMs at increasing concentrations, but not to Calu-3 cells. Calcitriol cytotoxicity was determined by LDH release/activity in the supernatant samples after 24h (a) or 48h (b) of treatment. Additionally, Calu-3 cell viability following calcitriol treatment was assessed by the MTT assay. Differences among vehicle and treated groups were evaluated using one-way ANOVA followed by Dunnett's post-hoc test. ns: non-statistically significant ($p > 0.05$). *** $p \leq 0.001$. $n = 3$ independent experiments.

Raw data_Figure 1

MHV-3 Titer (Log10 p.f.u/mL) - Figure 1b						
Replicates	Calcitriol (μM)					
	0	0.1	1.0	2.5	5.0	
#1	7.778	7.146	7.23	7.146	5.362	
#2	7.301	7.114	7.279	6.778	5.398	
#3	7.699	7.376	6.954	7.114	5.699	
Mean ± SEM	7.593 ± 0.15	7.212 ± 0.08	7.154 ± 0.10	7.013 ± 0.12	5.486 ± 0.11	
One-way ANOVA plus Dunnet's (compared to 0 μM)	X	p=0.1146	p=0.0642	p=0.0152	p<0.0001	
MHV-3-induced LDH release (% of uninfected control) - Figure 1c						
Replicates	Calcitriol (μM)					
	0	0.1	1.0	2.5	5.0	
#1	312.67	303.03	277.81	199.66	125.34	
#2	280.24	263.37	307.94	262.75	121.82	
#3	275.08	240.67	227.54	210.23	141.23	
Mean ± SEM	289.3 ± 11.76	269.0 ± 18.22	271.1 ± 23.45	224.2 ± 19.51	129.5 ± 5.97	
One-way ANOVA plus Dunnet's (compared to 0 μM)	X	0.8116	0.8588	0.0664	0.0002	
MHV-A59 Titer (Log10 p.f.u/mL) - Figure 1d						
Replicates	Calcitriol (μM)					
	0	0.1	1.0	2.5	5.0	
#1	7.462	7.146	7.176	7.724	6.114	
#2	6.845	7.431	7.398	7.505	5.845	
#3	7.633	7.376	7.415	7.544	6.176	
Mean ± SEM	7.313 ± 0.24	7.318 ± 0.15	7.330 ± 0.08	7.591 ± 0.07	6.045 ± 0.10	
One-way ANOVA plus Dunnet's (compared to 0 μM)	X	p>0.9999	p=0.9999	p=0.4148	p=0.0002	
MHV-A59-induced LDH release (% of uninfected control) - Figure 1e						
Replicates	Calcitriol (μM)					
	0	0.1	1	2.5	5	
#1	276.58	267.90	261.77	273.96	160.54	
#2	294.57	285.04	263.40	300.30	144.93	
#3	283.65	248.88	273.72	328.81	124.73	
Mean ± SEM	284.9 ± 5.233	267.3 ± 10.44	266.3 ± 3.741	301.0 ± 15.84	143.4 ± 10.37	
One-way ANOVA plus Dunnet's (compared to 0 μM)	X	0.5674	0.5253	0.6372	<0.0001	
SARS-CoV-2 Titer (Log10 p.f.u/mL) - Figure 1f						
Replicates	Calcitriol (μM)					
	0	1.0	2.5	5.0	7.5	10
#1	6.20	6.00	5.51	4.85	3.90	4.43
#2	5.95	5.26	4.60	5.18	4.62	3.60
#3	6.04	5.38	5.20	4.18	4.38	3.32
Mean ± SEM	6.063 ± 0.07	5.547 ± 0.23	5.103 ± 0.27	4.737 ± 0.29	4.300 ± 0.21	3.783 ± 0.33
One-way ANOVA plus Dunnet's (compared to 0 μM)	X	p=0.4774	p=0.0677	p=0.0108	p=0.0013	p=0.0002

SARS-CoV-2 Titer (Log10 p.f.u/mL) - Figure 1g						
Replicates	Calcitriol (μ M)					
	0	1.0	2.5	5.0	7.5	10
#1	220.22	143.96	182.76	196.62	161.57	176.34
#2	196.38	209.48	184.25	183.18	255.46	217.89
#3	208.62	193.59	216.60	217.04	190.75	206.86
Mean \pm SEM	208.4 \pm 6.881	182.3 \pm 19.73	194.5 \pm 11.04	198.9 \pm 9.841	202.6 \pm 27.74	200.4 \pm 12.43
One-way ANOVA plus Dunnet's (compared to 0 μ M)	X	p=0.6884	p=0.9578	p=0.9916	p=0.9987	p=0.9958

Raw data_Figure 2

Figure 2b

Body weight change (Mean % ± S.E.M % from baseline)			Two-way ANOVA n=10		
dpi	STD_MHV	Vit.D_MHV	ANOVA Table	F (DFn, DFd)	P value
0	100.0 ± 0.000, n=10	100.0 ± 0.000, n=10	dpi (0 to 6 dpi)	F (6, 120) = 1.469	P=0.1944
1	99.52 ± 1.925, n=10	99.21 ± 0.488, n=10	diet factor	F (6, 120) = 47.38	P<0.0001
2	95.30 ± 1.812, n=10	97.58 ± 1.185, n=10	dpi x diet factor	F (1, 120) = 14.02	P=0.0003
3	87.64 ± 2.467, n=10	94.74 ± 2.493, n=10	Multiple comparisons - Fischer LSD posthoc		
4	82.17 ± 2.405, n=10	88.61 ± 2.553, n=10	STD_MHV - Vit.D_MHV	Sense	FDR Individual P Value
5	74.96 ± 2.398, n=10	82.86 ± 2.813, n=9	0 dpi	A-B	0.750 >0.9999
6	72.00 ± 2.000, n=7	76.89 ± 2.634, n=8	1 dpi	A-B	0.750 0.9114
7		81.44 ± 8.370, n=7	2 dpi	A-B	0.4343 0.4137
8		82.58 ± 6.315, n=4	3 dpi	A-B	0.0312 0.0119
9		88.86 ± 2.865, n=4	4 dpi	A-B	0.0388 0.0222
10		90.61 ± 3.370, n=3	5 dpi	A-B	0.0312 0.0066
12		93.39 ± 1.985, n=3	6 dpi	A-B	0.172 0.1311
14		94.25 ± 1.765, n=3			

Figure 2c

Mean Clinical Score			Two-way ANOVA n=10		
dpi	STD_MHV	Vit.D_MHV	Fixed effects (type III)	F (DFn, DFd)	P value
1	0	0	dpi (all time points)	F (2.242, 10.09) = 96.70	<0.0001
2	0	0	diet factor	F (1, 8) = 464.6	<0.0001
3	0.8	0.2	dpi x diet factor	F (12, 54) = 48.74	<0.0001
4	3.2	1			
5	6.6	2			
6	11.8	3.4			
7	15	6			
8	15	7			
9	15	3.5			
10	15	0.5			
11	15	0			
12	15	0			
13	15	0			
14	15	0			

Figure 2d

Survival Analysis						Log-rank (Mantel-Cox) test		
Biological replicate	d.p.i	Mock STD	Mock Vit.D	MHV STD	MHV Vit.D	Median survival	d.p.i	
#1	14	0				MHV STD	6	
#2	14	0				MHV Vit.D3	8	
#3	14	0				Chi square	df	P value
#4	14	0				10.7	1	0.0011
#5	14	0				Mock groups were not considered in the analysis		
#1	14		0					
#2	14		0					
#3	14		0					
#4	14		0					
#5	14		0					
#1	5			1				
#2	5			1				
#3	6			1				
#4	6			1				
#5	6			1				
#6	5			1				
#7	6			1				
#8	6			1				
#9	6			1				
#10	6			1				
#1	5				1			
#2	6				1			
#3	14				0			
#4	14				0			
#5	8				1			
#6	7				1			
#7	8				1			
#8	8				1			
#9	10				1			
#10	14				0			

Legend: 0: survived ; 1: dead.

Figure 2e

Figure 2e	Body temperature (mean °C)			
	STD group		vit.D group	
	Baseline	3dpi	Baseline	3dpi
	36.9	38.8	36.4	37.8
	37.1	38.2	37.1	37.7
	36.4	38.2	36.6	37.5
	36.5	38.1	36.4	37.5
	36.9	38	37.1	37.3
	36.1	37.9	36.8	37.2
	36.1	37.6	36.5	37.1
	36.6	37.6	36.2	37
	36.3	37.5	37.2	36.9
	36.5	37.4	36.9	36.7
Mean	36.54	37.93	36.72	37.27
S.E.M	0.1077	0.1342	0.1104	0.1126
	Paired t test (STD group)		Paired t test (Vit.D group)	
	P value	<0.0001	P value	0.0107
	t, df	t=11.80, df=9	t, df	t=3.208, df=9
	Number of pairs = 10		Number of pairs = 10	

Figure 2f

MHV-3 load in the plasma (Log10 p.f.u / mL)					Mann-Whitney test			
STD		Vit.D			Group comparison	Sense	FDR	Individual P Value
Mock A	MHV B	Mock C	MHV D		Mock STD vs. MHV-3 STD	A-B	ND	ND
1.000	5.000	1.000	1.000		Mock Vit.D vs. MHV-3 Vit.D	C-D	ND	ND
1.000	4.301	1.000	1.000		MHV-3 STD vs. MHV-3 Vit.D	B-D	ND	0.0162
1.000	4.699	1.000	1.000		Mock STD vs. Mock Vit.D	A-C	ND	ND
1.000	5.000	1.000	4.000					
1.000	5.903	1.000	1.000					
1.000	5.301	1.000	4.602					
1.000	5.845	1.000	4.255					
1.000	4.301	1.000	5.903					
Mean	1.000	5.044	1.000					
S.E.M	0.000	0.219	0.000					

Raw data_Figure 3

Figure 3a	Lung MHV-3 load (Log10 p.f.u / g)				Mann-Whitney test				
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value	
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	ND	ND	
	1.000	3.600	1.000	1.000	Mock_Vit.D vs. MHV-3_Vit.D	C-D	ND	ND	
	1.000	4.000	1.000	3.100	MHV-3_STD vs. MHV-3_Vit.D	B-D	ND	0.0079	
	1.000	5.000	1.000	3.000	Mock_STD vs. Mock_Vit.D	A-C	ND	ND	
	1.000	4.600	1.000	1.000					
	1.000	4.100	1.000	3.000					
Mean	1.000	4.260	1.000	2.220					
S.E.M	0.000	0.244	0.000	0.498					
Figures 3b and 3c									
Experiment group	Biological Replicate	Cell counts x 10 ³ /uL blood			Neutrophil-to-lymphocyte ratio	One-way ANOVA plus Fischer LSD posthoc test			
		WBC	Lymphocytes	Neutrophils					
Mock_STD	1	4.2	2.1	2.1	1.0				
	2	3.7	2.4	1.3	0.5	Whole blood cells (WBC)			
	3	3.7	2	1.7	0.9	Group comparison	Sense	FDR	Individual P Value
	4	3.5	2.1	1.4	0.7	Mock_STD vs. MHV-3_STD	A-B	0.0059	0.0019
	5	4.1	2.2	1.9	0.9	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.1054	0.1004
Mean		3.84	2.16	1.68	0.8	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.1054	0.0705
S.E.M		0.1327	0.06782	0.1497	0.08944	Mock_STD vs. Mock_Vit.D	A-C	0.7635	0.9696
MHV_STD	1	2.5	0.7	1.8	2.6				
	2	2.4	0.8	1.6	2.0	Lymphocytes			
	3	1	0.3	0.7	2.3	Group comparison	Sense	FDR	Individual P Value
	4	1.3	0.4	0.9	2.3	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	5	2.4	0.6	1.8	3.0	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0026	0.0049
Mean		1.92	0.56	1.36	2.44	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0092	0.0263
S.E.M		0.3184	0.09274	0.2337	0.1691	Mock_STD vs. Mock_Vit.D	A-C	0.2072	0.7892
Mock_Vit.D	1	3.1	1.9	1.2	0.6				
	2	2.7	1.6	1.1	0.7	Neutrophils			
	3	4.3	2.3	2	0.9	Group comparison	Sense	FDR	Individual P Value
	4	5	3.4	1.6	0.5	Mock_STD vs. MHV-3_STD	A-B	0.76	0.2993
	5	4	2	2	1.0	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.8853	0.8431
Mean		3.82	2.24	1.58	0.74	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.76	0.3619
S.E.M		0.414	0.3108	0.1908	0.09274	Mock_STD vs. Mock_Vit.D	A-C	0.8853	0.7418
MHV_Vit.D	1	3.2	1.4	1.8	1.3				
	2	1.4	0.6	0.8	1.3	Neutrophil-to-lymphocyte ratio (NRL)			
	3	2.2	0.8	1.4	1.8	Group comparison	Sense	FDR	Individual P Value
	4	3.8	1.9	1.9	1.0	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	5	4	1.7	2.3	1.4	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0008	0.0024
Mean		2.92	1.28	1.64	1.36	MHV-3_STD vs. MHV-3_Vit.D	B-D	<0.0001	<0.0001
S.E.M		0.4923	0.2518	0.2542	0.1288	Mock_STD vs. Mock_Vit.D	A-C	0.1999	0.7616
Figure 3d	CD45+ Leukocytes in Lungs (cells / mm2)				One-way ANOVA plus Fischer LSD posthoc test				
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value	
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001	
	180	1280	340	560	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0928	0.1326	
	150	2310	580	320	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0007	0.0006	
	410	1760	260	1550	Mock_STD vs. Mock_Vit.D	A-C	0.5193	0.9891	
	180	3130	330	840					
	700	1560	130	660					
Mean	324.000	2008.000	328.000	786.000					
S.E.M	105.000	327.300	73.310	208.700					
Figure 3g	Mean lung injury score				Kruskal-Wallis test plus uncorrected Dunn's test				
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value	
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.0017	0.0006	
	2.000	9.000	2.000	2.000	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.4423	0.5617	
	1.000	5.000	3.000	2.000	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0784	0.0498	
	1.000	7.000	2.000	3.000	Mock_STD vs. Mock_Vit.D	A-C	0.3799	0.3618	
	1.000	6.000	1.000	1.000					
	1.000	3.000	1.000	3.000					
Mean	1.200	6.000	1.800	2.200					
S.E.M	0.200	1.000	0.374	0.374					

Figure 3h	Caspase3+ cells in Lungs (cells / mm2)				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	20	230	40	70	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0098	0.0281
	40	190	60	130	MHV-3_STD vs. MHV-3_Vit.D	B-D	<0.0001	<0.0001
	20	130	20	110	Mock_STD vs. Mock_Vit.D	A-C	0.1411	0.5377
	50	220	30	80				
	10	150	50	40				
	Mean	28.000	184.000	40.000	86.000			
	S.E.M	7.348	19.390	7.071	15.680			

Raw data_Figure 4

Figure 4	TNF (ng/Lung g-1)				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	9.763	19.491	6.123	10.731	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0093	0.0265
	8.603	19.334	6.602	11.009	MHV-3_STD vs. MHV-3_Vit.D	B-D	<0.0001	<0.0001
	8.292	19.928	8.267	9.535	Mock_STD vs. Mock_Vit.D	A-C	0.0615	0.2341
	9.227	12.030	8.707	12.789				
	9.199	18.256	7.800	8.425				
	Mean	9.017	17.810	7.500				
	S.E.M	0.258	1.470	0.492	0.734			
	IL-6 (ng/Lung g-1)				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.0003	0.0003
	8.585	35.432	3.207	5.785	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.4087	0.7786
	5.341	41.751	4.137	5.489	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0003	0.0003
	5.267	16.689	5.816	6.239	Mock_STD vs. Mock_Vit.D	A-C	0.4087	0.7691
	4.971	8.373	5.013	4.897				
	5.753	41.455	4.464	7.201				
	Mean	5.983	28.740	4.527	5.922			
	S.E.M	0.662	6.840	0.436	0.387			
	IL-1 β (ng/Lung g-1)				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	8.132	18.389	4.220	7.681	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.3484	0.4977
	6.215	29.413	4.827	8.608	MHV-3_STD vs. MHV-3_Vit.D	B-D	<0.0001	<0.0001
	5.948	15.632	4.312	7.958	Mock_STD vs. Mock_Vit.D	A-C	0.4211	0.8021
	5.608	11.627	6.341	5.720				
	3.356	29.156	6.157	5.157				
	Mean	5.852	20.840	5.171	7.025			
	S.E.M	0.763	3.610	0.453	0.671			
	IFN- γ (ng/Lung g-1)				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	<0.0001	<0.0001
	2.947	18.414	0.933	3.569	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.2698	0.3854
	2.153	17.940	1.332	4.561	MHV-3_STD vs. MHV-3_Vit.D	B-D	<0.0001	<0.0001
	1.440	12.277	1.350	4.263	Mock_STD vs. Mock_Vit.D	A-C	0.456	0.8686
	1.184	6.487	1.766	2.075				
	1.086	25.141	1.527	2.537				
	Mean	1.762	16.050	1.381	3.401			
	S.E.M	0.350	3.142	0.137	0.481			

Raw data_Figure 5

Figure 5	lsg20				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.0213	0.0203
	0.917	1.689	1.294	3.156	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.002	0.0009
	1.297	1.347	0.936	4.548	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0276	0.0394
	1.181	3.274	1.557	3.000	Mock_STD vs. Mock_Vit.D	A-C	0.2842	0.5414
	0.604	2.627	1.373	2.501				
Mean FC	1.000	2.234	1.290	3.301				
S.E.M	0.154	0.440	0.130	0.439				
	lsg15				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.4267	0.3048
	0.623	1.229	0.961	1.165	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0554	0.0132
	1.120	1.112	1.094	1.465	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.181	0.0862
	0.950	1.227	1.238	1.528	Mock_STD vs. Mock_Vit.D	A-C	>0.9999	0.972
	1.305	1.058	0.726	1.563				
Mean FC	1.000	1.157	1.005	1.430				
S.E.M	0.145	0.043	0.109	0.091				
	Ifn1b				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.3951	0.3763
	0.992	1.104	1.112	2.369	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0258	0.0082
	1.097	1.546	0.779	1.441	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.0619	0.0393
	1.080	1.116	1.296	1.493	Mock_STD vs. Mock_Vit.D	A-C	0.7452	0.9463
	0.831	0.998	0.870	1.386				
Mean FC	1.000	1.191	1.014	1.672				
S.E.M	0.061	0.121	0.117	0.233				
	Ceacam 1				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.6751	0.643
	0.793	1.226	0.529	1.246	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.6751	0.5404
	1.292	0.805	0.968	0.548	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.6751	0.6307
	0.714	0.963	0.878	1.066	Mock_STD vs. Mock_Vit.D	A-C	0.6751	0.5517
	1.199	0.629	1.140	1.152				
Mean FC	1.000	0.906	0.879	1.003				
S.E.M	0.144	0.127	0.129	0.156				
	Def1				One-way ANOVA plus Fischer LSD posthoc test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.9258	0.6613
	0.882	1.087	1.036	1.067	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.9308	0.8865
	1.024	0.780	1.137	1.236	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.5633	0.2682
	0.996	1.236	1.274	1.130	Mock_STD vs. Mock_Vit.D	A-C	0.4391	0.1045
	1.099	1.052	1.156	1.120				
Mean FC	1.000	1.039	1.151	1.138				
S.E.M	0.045	0.095	0.049	0.035				

Raw data_Figure 6

Figure 3a	Mean Liver injury score				Kruskal-Wallis test plus uncorrected Dunn's test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.0036	0.0017
	2.000	5.000	1.000	7.000	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0217	0.0206
	1.000	8.000	1.000	5.000	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.1932	0.276
	2.000	7.000	2.000	4.000	Mock_STD vs. Mock_Vit.D	A-C	0.4123	0.7854
	1.000	7.000	2.000	4.000				
	2.000	9.000	1.000	4.000				
Mean	1.600	7.200	1.400	4.800				
S.E.M	0.245	0.663	0.245	0.583				

Figure 3d	Mean Liver injury score				Kruskal-Wallis test plus uncorrected Dunn's test			
	STD		Vit.D		Group comparison	Sense	FDR	Individual P Value
	Mock_A	MHV_B	Mock_C	MHV_D	Mock_STD vs. MHV-3_STD	A-B	0.0036	0.0017
	2.000	5.000	1.000	7.000	Mock_Vit.D vs. MHV-3_Vit.D	C-D	0.0217	0.0206
	1.000	8.000	1.000	5.000	MHV-3_STD vs. MHV-3_Vit.D	B-D	0.1932	0.276
	2.000	7.000	2.000	4.000	Mock_STD vs. Mock_Vit.D	A-C	0.4123	0.7854
	1.000	7.000	2.000	4.000				
	2.000	9.000	1.000	4.000				
Mean	1.600	7.200	1.400	4.800				
S.E.M	0.245	0.663	0.245	0.583				