

Table S1. Mean values (ng/mL) ± standard deviations of vitamin D₃ metabolites in rat serum. The concentration of vitamin D₃ in serum from negative control rats were below the limit of quantification.

Time (h.)	24,25-dihydroxyvitamin D ₃ †,*			25-hydroxyvitamin D ₃ ‡,**			Vitamin D ₃ ‡,**		
	WPI	CN	Control	WPI	CN	Control	WPI	CN	Control
2	13.40±2.93 ^{Aab}	12.66±1.55 ^{ABab}	11.78±1.70 ^{Bab}	9.09±1.69 ^{Ac}	7.35±0.28 ^{ABc}	8.04±0.56 ^{Bc}	32.18±3.17 ^{Ad}	9.81±5.68 ^{Bd}	16.12±4.77 ^{Bd}
3	9.24±3.51 ^{Ab}	13.69±1.58 ^{ABb}	10.41±1.06 ^{Bb}	7.81±1.39 ^{Ac}	8.67±1.51 ^{ABc}	7.72±0.32 ^{Bc}	41.18±7.32 ^{Ac^d}	39.20±12.67 ^{Bcd}	16.12±7.19 ^{Bcd}
4	14.01±1.74 ^{Aab}	12.40±1.99 ^{ABab}	10.55±0.33 ^{Bab}	9.17±0.88 ^{Ac}	8.97±1.12 ^{ABc}	8.08±0.15 ^{Bc}	53.60±18.56 ^{Abcd}	33.94±6.07 ^{Bbcd}	38.65±2.88 ^{Bcd}
5	13.95±2.59 ^{Aab}	13.17±2.36 ^{ABab}	11.13±0.80 ^{Bab}	9.91±0.25 ^{Abc}	9.05±1.57 ^{ABbc}	8.27±0.91 ^{Bbc}	49.75±13.85 ^{Abc}	47.94±10.66 ^{Bbc}	31.98±5.85 ^{Bbc}
6	15.63±1.13 ^{Aa}	13.60±1.35 ^{ABa}	13.76±0.91 ^{Ba}	12.04±1.16 ^{Aab}	10.59±1.20 ^{ABab}	9.95±0.62 ^{Bab}	80.66±31.19 ^{Aab}	51.06±21.37 ^{Bab}	51.57±2.25 ^{Bab}
7	14.65±0.84 ^{Aab}	12.63±1.30 ^{ABab}	12.94±1.05 ^{Bab}	11.65±0.67 ^{Aa}	11.27±1.99 ^{Aa}	11.40±0.40 ^{Ba}	56.17±1.05 ^{Aabc}	62.47±0.24 ^{Babc}	50.04±10.98 ^{Babc}
8	13.71±0.52 ^{Aab}	14.39±1.44 ^{ABab}	12.63±0.74 ^{Bab}	11.95±1.55 ^{Aab}	11.20±0.88 ^{ABab}	10.08±0.98 ^{Bab}	84.50±6.47 ^{Aa}	64.20±3.41 ^{Ba}	53.16±7.64 ^{Ba}
10	14.67±0.48 ^{Aab}	13.22±0.49 ^{ABab}	13.05±1.41 ^{Bab}	13.76±2.11 ^{Aa}	11.17±0.62 ^{ABa}	9.20±0.27 ^{Ba}	105.78±22.62 ^{Aa}	71.16±7.22 ^{Ba}	55.54±6.10 ^{Ba}
	Negative control			Negative control			Negative control		
0	12.73±1.97			6.45±0.68			0±0		
10	11.86±0.79			6.97±0.57			0±0		

n= 77 rats.
†: P-value <0.05 for comparison between time points.
*: P-value < 0.05 for comparison between treatment groups.
‡: P-value < 0.001 for comparison between time points.
**: P-value < 0.001 for comparison between treatment groups.
Different superscript uppercase letters indicate significant differences related to group. Different superscript lowercase letters indicate significant differences related to time.