

**Supplemental Table S1**

**Body weight for aged rats**

	14 Days (HS)				28 Days (HS+Recovery)			
	CC-Veh	CC-HMB	Vehicle	HMB	CC-Veh	CC-HMB	Vehicle	HMB
	n=8	n=8	n=8	n=12	n=7	n=7	n=7	n=11
Time 0	554.9 ± 16.9	556.5±21.2	558.5 ± 21.6	552.9 ± 30.3	548.6±35.1	549.5±19.2	532.9±43.8	539.4±30.8
14 days (HS)	529.6 ± 15.4	538.8±22.7	473.3 ± 20.5	486.0 ± 32.6	533.0±30.0	536.8±20.8	451.3±39.9	476.2±27.2
28 days (Recovery)	N/A	N/A	N/A	N/A	513.8±35.4	521.5±19.3	423.5±50.9	455.5±33.6

**Supplemental Table S2**

**Isometric Force/Bodyweight for aged Rats**

	14 Days (HS)				28 Days (HS+Recovery)			
	CC-Veh	CC-HMB	Vehicle	HMB	CC-Veh	CC-HMB	Vehicle	HMB
	n=8	n=8	n=8	n=12	n=7	n=7	n=7	n=11
Time 0	1.84 ± 0.06	1.85 ± 0.04	1.83 ± 0.04	1.87 ± 0.06	1.85 ± 0.09	1.85 ± 0.04	1.80 ± 0.09	1.84 ± 0.10
14 days (HS)	1.79 ± 0.08	1.77 ± 0.09	1.23 ± 0.13	1.61 ± 0.07	1.76 ± 0.08	1.75 ± 0.08	1.27 ± 0.10	1.53 ± 0.08
28 days (Recovery)	N/A	N/A	N/A	N/A	1.84 ± 0.1	1.714 ± 0.06	1.12 ± 0.08	1.44 ± 0.07

**Supplemental Table S3**

**Gastrocnemius muscle wet weight for aged rats**

**14 Days (HS)**

Control HS

**28 Days (HS+Recovery)**

Control Recovery

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	(n=9)	(n=7)	(n=7)	(n=11)
CCon-Veh (g)	1.33 ± 0.17	1.33 ± 0.15	1.31 ± 0.06	1.32 ± 0.07
CCon-HMB (g)	1.29 ± 0.20	1.34 ± 0.12	1.32 ± 0.13	1.33 ± 0.08
Vehicle (g)	1.31 ± 0.11	1.09 ± 0.19	1.39 ± 0.07	1.11 ± 0.17
HMB (g)	1.32 ± 0.09	1.13 ± 0.06	1.36 ± 0.06	1.22 ± 0.13

### Supplemental Table S4

#### Effect of HMB on Body Weight of Young FBN Rats

Group	n	Body Weight		
		Time 0	14d HS	Recovery
CC-Veh.	6	371.2 ± 15.8	372.2 ± 13.2	370.8 ± 11.2
CC-HMB	6	368.0 ± 22.7	371.3 ± 19.9	367.3 ± 23.6
Vehicle	6	380.0 ± 20.3	330.0 ± 13.3 <sup>§</sup>	361.8 ± 21.2*
HMB	6	362.2 ± 22.7	320.5 ± 23.7 <sup>§</sup>	347.2 ± 17.8*

**Supplemental Table S5**

**Effect of HMB on Isometric Force of Young FBN Rats**

Group	Isometric Force/Bodyweight (N/kg)			
	n	Time 0	14d HS	Recovery
CC-Veh	6	39.3 ± 3.5	39.3 ± 1.1	39.2 ± 2.6
CC-HMB	6	42.9 ± 2.5	40.2 ± 4.8	43.2 ± 4.8
Vehicle	6	40.5 ± 5.2	37.1 ± 5.5	37.4 ± 1.4
HMB	6	43.8 ± 4.4	34.3 ± 3.5	37.8 ± 7.3