

**Supplementary Table S1. Viability of C2C12 myoblasts:**

Cell viability %				
dexamethasone concentration ( $\mu\text{M}$ )				
	0.01	0.03	0.1	10
0	69.1 $\pm$ 1.8	62.4 $\pm$ 4.6	58.9 $\pm$ 4.3	52.3 $\pm$ 2.3
R(+) LA 1 $\mu\text{M}$	67.7 $\pm$ 1.7	63.8 $\pm$ 1.8	64.4 $\pm$ 5.5	54.5 $\pm$ 1.2
R(+) LA 10 $\mu\text{M}$	70.5 $\pm$ 2.0	58.6 $\pm$ 1.9	66.2 $\pm$ 7.3	57.9 $\pm$ 0.9
R(+) LA 30 $\mu\text{M}$	65.3 $\pm$ 2.9	57.0 $\pm$ 2.2	64.8 $\pm$ 6.0	57.2 $\pm$ 1.6
R(+) LA 100 $\mu\text{M}$	83.9 $\pm$ 3.6 <sup>^</sup>	60.5 $\pm$ 1.1	71.3 $\pm$ 7.0	64.3 $\pm$ 1.3 <sup>^</sup>
R(+) LA 300 $\mu\text{M}$	85.9 $\pm$ 4.9 <sup>^</sup>	79.1 $\pm$ 6.6 <sup>^</sup>	74.8 $\pm$ 8.0 #	74.1 $\pm$ 2.0 <sup>^</sup>
HMB 30 $\mu\text{M}$	70.1 $\pm$ 1.5	72.7 $\pm$ 9.6	47.5 $\pm$ 6.6	49.1 $\pm$ 4.0
HMB 100 $\mu\text{M}$	71.8 $\pm$ 2.0	73.2 $\pm$ 9.2	49.8 $\pm$ 4.9	47.0 $\pm$ 3.2
HMB 300 $\mu\text{M}$	85.2 $\pm$ 3.8 <sup>^</sup>	84.8 $\pm$ 9.4 <sup>^</sup>	56.5 $\pm$ 6.0	44.5 $\pm$ 2.7
HMB 1 mM	97.9 $\pm$ 4.9 <sup>^^</sup>	100.2 $\pm$ 10.9 <sup>^^</sup>	69.7 $\pm$ 1.6	47.8 $\pm$ 3.5
HMB 3 mM	159.1 $\pm$ 6.7 <sup>^^</sup>	108.5 $\pm$ 7.1 <sup>^^</sup>	129.4 $\pm$ 2.8 <sup>^^</sup>	52.4 $\pm$ 2.1

Cell viability of C2C12 myoblasts treated with increasing concentrations of dexamethasone (0.01 - 10  $\mu\text{M}$ ) in the absence or in the presence of increasing concentration of R(+)  
LA (1 – 300  $\mu\text{M}$ ) or HMB (30  $\mu\text{M}$  – 3 mM) for 48 h. Cell viability was measured by MTT assay. Control condition was arbitrarily set as 100% and values are expressed as the mean  $\pm$  S.E.M. of 3 experiments. <sup>^</sup>P<0.05 and <sup>^^</sup>P<0.01 vs the same treatment with dexamethasone in the absence of R(+)  
LA and HMB.

**Supplementary Table S2. Viability of C2C12 myoblasts:**

cell viability %			
concentration	R(+) <b>LA</b>	HMB	mixture
0 $\mu$ M	100 $\pm$ 2.4	100 $\pm$ 2.4	
1 $\mu$ M	96.9 $\pm$ 1.2	98.3 $\pm$ 2.9	
10 $\mu$ M	92.2 $\pm$ 2.1	100.3 $\pm$ 6.9	
30 $\mu$ M	92.8 $\pm$ 3.1	90.8 $\pm$ 7.4	
100 $\mu$ M	96.5 $\pm$ 5.1	93.2 $\pm$ 5.7	
300 $\mu$ M	110.5 $\pm$ 3.3	92.6 $\pm$ 6.3	
1 mM		113.8 $\pm$ 3.1	
3 mM		194.7 $\pm$ 6.9**	
R(+) <b>LA</b> 30 $\mu$ M + HMB 100 $\mu$ M			106.2 $\pm$ 2.1
R(+) <b>LA</b> 30 $\mu$ M + HMB 300 $\mu$ M			125.0 $\pm$ 2.6*
R(+) <b>LA</b> 100 $\mu$ M + HMB 300 $\mu$ M			128.0 $\pm$ 1.6*
R(+) <b>LA</b> 100 $\mu$ M + HMB 1 mM			169.4 $\pm$ 2.0*
R(+) <b>LA</b> 300 $\mu$ M + HMB 3 mM			181.7 $\pm$ 4.1**

Cell viability of C2C12 myoblasts treated with increasing concentrations of R(+)**LA** (1-300  $\mu$ M) or HMB (1  $\mu$ M – 3 mM) or the combinations of both for 48 h. Control condition was arbitrarily set as 100% and values are expressed as the mean  $\pm$  S.E.M. of 3 experiments. \*P<0.05 and \*\*P<0.01 vs control (0  $\mu$ M).

**Supplementary Table S3. Superoxide anion levels in C2C12 myoblasts:**

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**( $\mu\text{M O}_2^-/\text{mg protein}/4\text{h}$ )**

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<b>dexamethasone concentration (<math>\mu\text{M}</math>)</b>	<b>48 h incubation</b>
0	6178 $\pm$ 426
0.01	5877 $\pm$ 401
0.03	8328 $\pm$ 389*
0.1	9828 $\pm$ 549*
0.3	10596 $\pm$ 255*
1	11390 $\pm$ 562*
10	10980 $\pm$ 518*
100	12012 $\pm$ 445*

$\text{O}_2^-$  concentration of C2C12 myoblasts treated with increasing concentration of dexamethasone (0.01 - 100  $\mu\text{M}$ ) for 4 h. The non-specific absorbance was measured in the presence of SOD (300 mU/ml) and subtracted from the total value. Values are expressed as  $\mu\text{M}/\text{mg protein}/4\text{h}$ . Bars represent the mean  $\pm$  S.E.M. of 3 experiments. \* $P < 0.05$  vs control (0  $\mu\text{M}$ ).