

**Supplemental Table S1.** Effects of ethyl nitroacetate,  $\alpha$ -lipoic acid or their combination on rumen mol% volatile fatty acid concentrations.

Measured variable	None	Ethyl nitroacetate		$\alpha$ -Lipoic acid		Both at		<i>P</i>	SEM
		3 mM	9 mM	3 mM	9 mM	3 mM	9 mM		
Total acids ( $\mu$ mol/mL) <sup>1</sup>	51.29	56.10	49.52	30.34	45.70	30.40	41.82	0.0664	6.680
Mol%									
Acetate	64.69 <sup>a</sup>	58.87 <sup>ab</sup>	54.93 <sup>bc</sup>	61.47 <sup>ab</sup>	64.46 <sup>a</sup>	52.08 <sup>c</sup>	56.08 <sup>bc</sup>	0.0004	1.539
Propionate	23.12 <sup>b</sup>	26.57 <sup>ab</sup>	32.33 <sup>a</sup>	26.09 <sup>ab</sup>	22.46 <sup>b</sup>	31.79 <sup>a</sup>	29.82 <sup>ab</sup>	0.0020	1.45
Butyrate	9.12 <sup>b</sup>	11.05 <sup>ab</sup>	9.98 <sup>b</sup>	9.16 <sup>b</sup>	9.47 <sup>b</sup>	12.10 <sup>a</sup>	10.95 <sup>ab</sup>	0.0040	0.488
Valerate	1.85 <sup>b</sup>	2.10 <sup>ab</sup>	1.53 <sup>b</sup>	2.31 <sup>ab</sup>	2.12 <sup>ab</sup>	2.63 <sup>a</sup>	1.37 <sup>b</sup>	0.0095	0.231
Isobutyrate	0.52	0.60	0.51	0.38	0.60	0.46	0.67	0.0675	0.060
Isovalerate	0.69 <sup>b</sup>	0.82 <sup>ab</sup>	0.71 <sup>b</sup>	0.59 <sup>b</sup>	0.88 <sup>ab</sup>	0.74 <sup>b</sup>	1.12 <sup>a</sup>	0.0167	0.081

<sup>1</sup>Per mL of incubation incubation fluid.

<sup>a,b,c,d</sup>Means within rows with unlike superscripts differ ( $P < 0.05$ ) using an LSMeans Differences with a Tukey's Honestly Significant Difference calculation.