

**Supplementary Materials 1- Primers Sequence for Real-time PCR**

Gene	Sequence(5,-3')	Accession number
<b>ChAT</b>	Forward: ACATGATCGAGCGCTGCAT Reverse: CGAACTGCAGGGACTTGTCA	NM_001170593.1
<b>M<sub>1</sub></b>	Forward: AACAGCTGGCCAAGAGAAAGAC Reverse: CAGGAACACAGTCCTTGCAGAA	NM_080773.1
<b>M<sub>2</sub></b>	Forward: TCAGCAATGCCTCCGTTATG Reverse: CCCAGAGGATGAAGGAAAGGA	NM_031016.1
<b>M<sub>3</sub></b>	Forward: GAGGAAGTACGGTCGCTGTCA Reverse: TCTTCATCGGAGGAAGCAGAGT	NM_012527.2
<b>M<sub>4</sub></b>	Forward: GCCATTGCTGCCTTCTACCT Reverse: CAGAGGGCTCTTGAGGAAAGC	NM_031547.1
<b>M<sub>5</sub></b>	Forward: TCCTCTGCTGGCAGTACTTGGT Reverse: TCCGGCAGTAGAGTATGGTCATG	NM_017362.4
<b><math>\alpha</math>7nAChR</b>	Forward: ATCATCGTGGCCTCTCTGT Reverse: GTCCTCTCCGGGCCTCTTC	NM_012832.3
<b><math>\beta</math>-actin</b>	Forward: CCTGTGGCATCCATGAAACTAC Reverse: CCAGGGCAGTAATCTCCTTCTG	NM_031144.3

**Supplementary Materials 2-Physiological parameters.**

Parameters	Groups	Before EA	During EA	After reperfusion
pH	NEA	7.40±0.02	7.39±0.02	7.39±0.01
	EA	7.39±0.02	7.41±0.01	7.40±0.01
	PD+EA	7.42±0.02	7.40±0.01	7.37±0.01
PaCO <sub>2</sub> (mmHg)	NEA	25.1±1.9	27.6±2.2	25.8±2.4
	EA	29.0±2.5	27.1±2.4	25.0±2.2
	PD+EA	28.7±1.2	28.2±1.8	27.3±2.3
PaO <sub>2</sub> (mmHg)	NEA	265.9±29.3	214.2±28.2	246.9±34.9
	EA	230.5±30.9	213.8±16.0	204.1±30.9
	PD+EA	263.9±24.0	236.3±23.9	236.5±16.5
MAP (mmHg)	NEA	95.8±1.7	94.3±1.7	94.0±1.4
	EA	90.8±3.2	95.0±2.2	95.1±1.5
	PD+EA	89.3±2.4	91.6±1.6	94.7±2.3

Data are presented as mean±SEM; n=10/group.