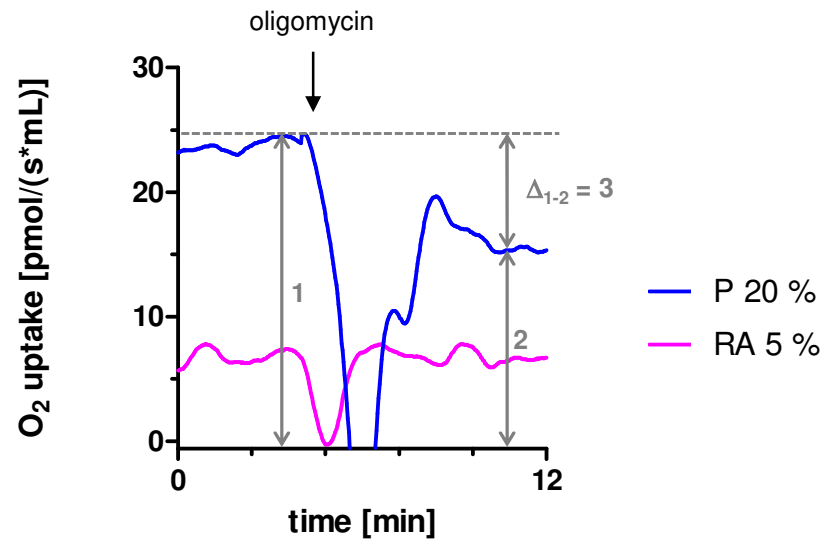


**Supplementary Table 1. Oligonucleotide sequences of quantitative PCR and digital PCR**

Gene	Accession number of NCBI	Oligonucleotide sequence (5' to 3')	Size (nucleotides)	T <sub>m</sub> (°C)	Length of amplicon (base pairs)	Assay reference (PubMed ID)
<i>MYC</i>	NG_007161.2 AY214166.1	F: GCCAGAGGAGGAACGAGCT	19	58	81	11472550
		R: GGGCCTTTTCATTGTTTCCA	21	60		
		P: FAM-TGCCCTGCGTGACCAGATCC-BHQ1	20	65		
<i>MT-ND1</i>	NC_012920.1	F: CCCTAAAACCCGCCACATC	19	59	68	this study
		R: AGCGATGGTGAGAGCTAAGGTC	22	59		
		P: FAM-CCATCACCC-ZEN-TCTACATCACCGCCC-IBFQ	24	68		

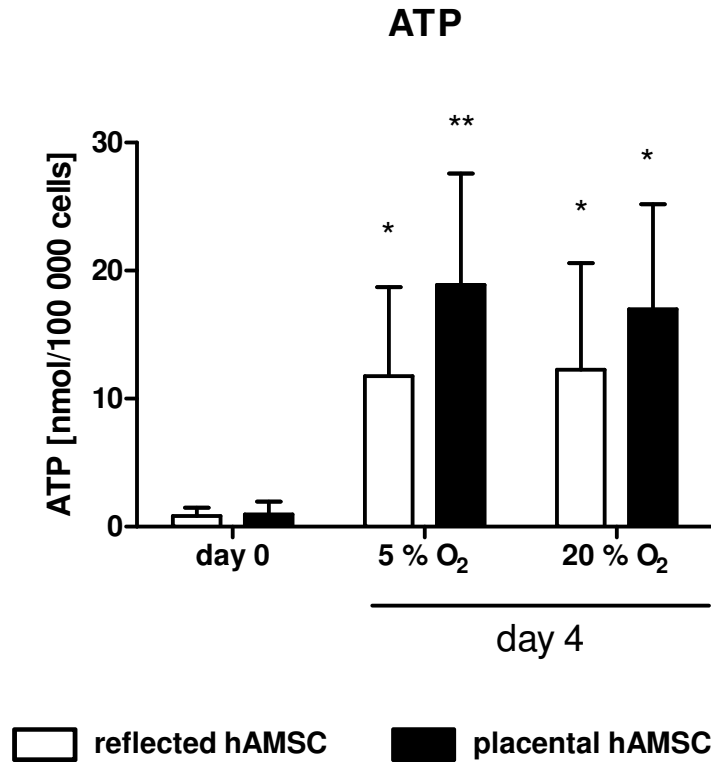
T<sub>m</sub>: melting temperature of Primer Express 2.0 software (Applied Biosystems, Foster City, USA) under default settings, F and R: forward and reverse amplification primers, P: sequence of fluorogenic hydrolysis probe, FAM: 6-carboxyfluorescein, BHQ1: Black Hole Quencher 1 (BHQ-1<sup>\*</sup>), ZEN: ZEN<sup>™</sup> internal quencher, IBFQ: Iowa Black<sup>®</sup> fluorescent quencher

## Supplementary Figure 1



**Supplementary Figure 1. Mitochondrial activity measurement.** Representative oxygen consumption trace of placental hAMSCs incubated for 4 days at 20 % oxygen (P, blue), and reflected hAMSCs incubated for 4 days at 5 % oxygen (RA, magenta). 1 = ROUTINE respiration, 2 = LEAK, 3 ( $\Delta_{1-2}$ ) = phosphorylation-related respiration. Abbreviations: hAMSCs, human amniotic mesenchymal stromal cells.

## Supplementary Figure 2



**Supplementary Figure 2. Adenosine triphosphate concentration (ATP).** ATP concentration was measured in 100 000 freshly isolated hAMSCs at day 0, and after 4 days incubation at 5 % and 20 % oxygen. The cells were homogenized and ATP was determined using luciferase reagent with Luminat LB 9507. n = 3-5 (biological replicates), mean  $\pm$  SD, \*p < 0.05 vs day 0. Abbreviations: hAMSCs, human amniotic mesenchymal stromal cells; O<sub>2</sub>, oxygen.