

## Supplementary materials

**Table S1.** Concentrations of the targeted analytes in cell lysate and culture medium. The reported concentrations are mean ( $\pm$  SD) values of three biological replicates.

	Cell lysate				Incubation medium			
	NS	CON	AD	MScI	NS	CON	AD	MScI
	$\mu\text{g/mL} \pm \text{SD}$				$\mu\text{g/mL} \pm \text{SD}$			
Pyruvate	1.30 $\pm$ 0.60	2.48 $\pm$ 0.09	2.35 $\pm$ 0.44	1.87 $\pm$ 0.45	3.49 $\pm$ 0.12	8.21 $\pm$ 0.65	8.38 $\pm$ 0.70	7.39 $\pm$ 0.98
2,3- <sup>13</sup> C <sub>2</sub> pyruvate	0.55 $\pm$ 0.19	0.78 $\pm$ 0.08	0.710 $\pm$ 0.14	0.623 $\pm$ 0.19	1.43 $\pm$ 0.09	2.25 $\pm$ 0.13	2.32 $\pm$ 0.05	2.16 $\pm$ 0.19
Lactate	41.20 $\pm$ 8.32	43.79 $\pm$ 2.57	40.40 $\pm$ 6.05	35.48 $\pm$ 7.35	48.00 $\pm$ 3.04	41.65 $\pm$ 0.95	51.36 $\pm$ 4.63	54.12 $\pm$ 4.23
1,2- <sup>13</sup> C <sub>2</sub> lactate	7.26 $\pm$ 1.16	8.04 $\pm$ 0.84	6.76 $\pm$ 1.02	6.80 $\pm$ 1.26	8.09 $\pm$ 0.96	7.36 $\pm$ 0.85	7.82 $\pm$ 0.59	9.53 $\pm$ 0.56
2- <sup>13</sup> C glycine	n.q.	n.q.	n.q.	n.q.	0.15*	n.q.	n.q.	n.q.
Glycine	6.68 $\pm$ 1.63	4.73 $\pm$ 0.45	3.96 $\pm$ 0.55	3.93 $\pm$ 0.82	12.22 $\pm$ 0.14	8.75 $\pm$ 0.35	8.22 $\pm$ 0.19	8.96 $\pm$ 0.49
1,2- <sup>13</sup> C <sub>2</sub> glutamine	n.q.	0.05 $\pm$ 0.01	0.04 $\pm$ 0.01	0.031*	n.q.	0.09 $\pm$ 0.01	0.09 $\pm$ 0.004	0.06 $\pm$ 0.01
Glutamine	1.27 $\pm$ 0.35	6.40 $\pm$ 0.94	5.56 $\pm$ 0.98	3.71 $\pm$ 1.02	2.24 $\pm$ 0.07	12.35 $\pm$ 1.04	12.39 $\pm$ 0.64	9.24 $\pm$ 1.04
Serine	12.51 $\pm$ 3.80	8.30 $\pm$ 0.82	6.97 $\pm$ 0.96	6.91 $\pm$ 1.82	25.24 $\pm$ 0.20	17.41 $\pm$ 0.39	15.65 $\pm$ 0.09	16.95 $\pm$ 0.19
Glutamic acid	7.67 $\pm$ 2.94	8.44 $\pm$ 0.98	6.81 $\pm$ 1.05	7.43 $\pm$ 1.32	17.12 $\pm$ 0.51	16.32 $\pm$ 0.62	13.77 $\pm$ 0.79	12.83 $\pm$ 0.25
Citric acid	2.99 $\pm$ 2.51	10.81 $\pm$ 1.24	10.58 $\pm$ 2.76	7.78 $\pm$ 1.59	11.90 $\pm$ 1.87	40.90 $\pm$ 1.44	41.27 $\pm$ 1.91	34.12 $\pm$ 4.58

\* Only one sample over the three biological replicates presented the analyte; n.q. denotes “not quantifiable”.