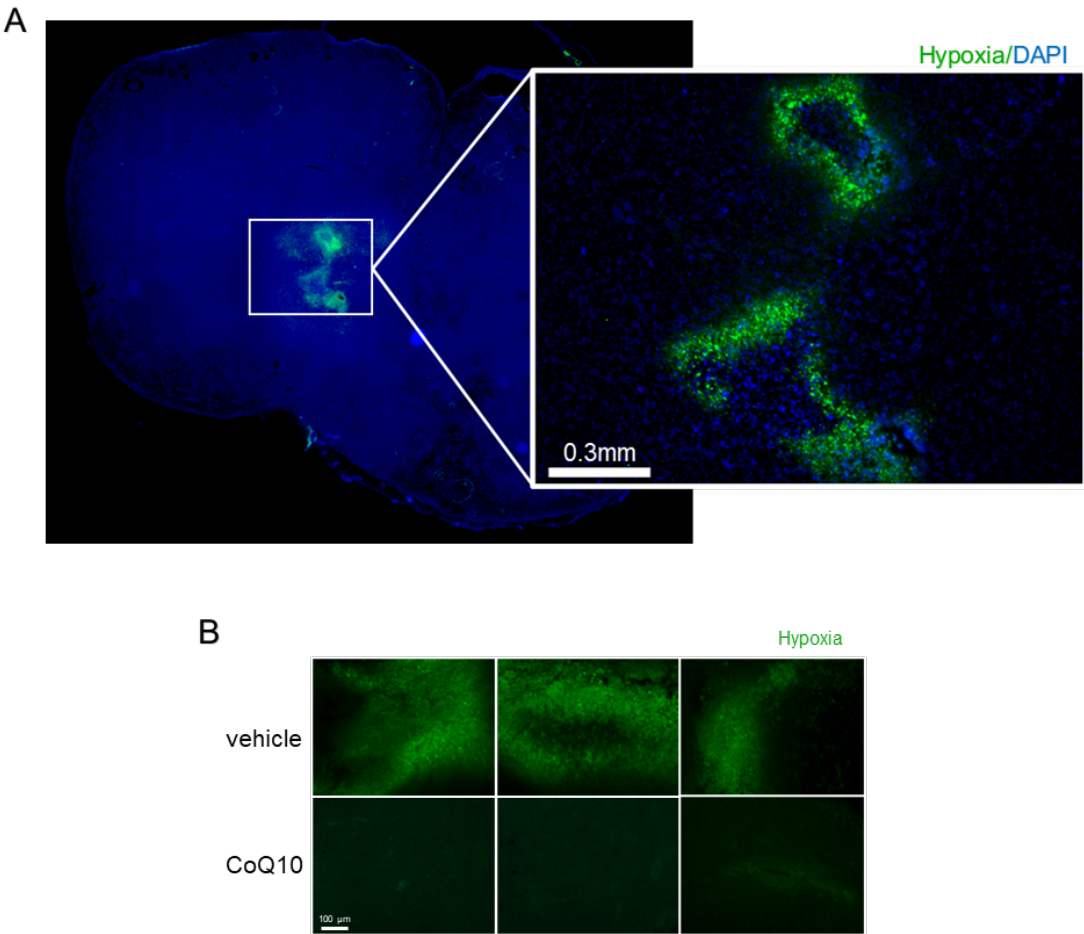
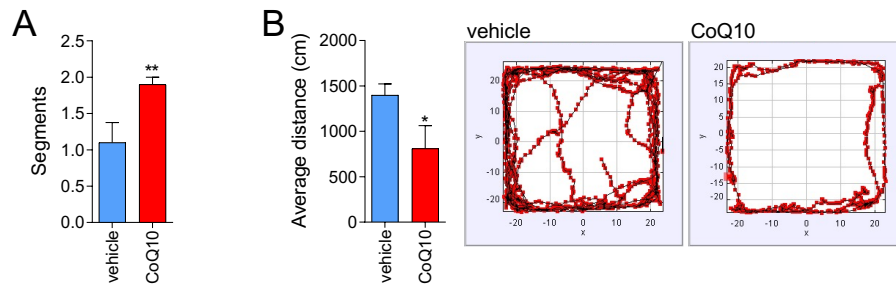


1 **Supplementary Figures**



2

3 **Supp. Fig. 1.** CoQ10 reduces tumor hypoxia in xenografts. A, Pimonidazole was injected via i.p.,
4 preceding animal's euthanasia. Hypoxia was determined by immunodetection of pimonidazole
5 adducts. Scan of a xenograft with DAPI (blue, nuclear labelling) and hypoxic regions (green) and
6 B, fluorescence microscopy image showing the hypoxic areas in detail.



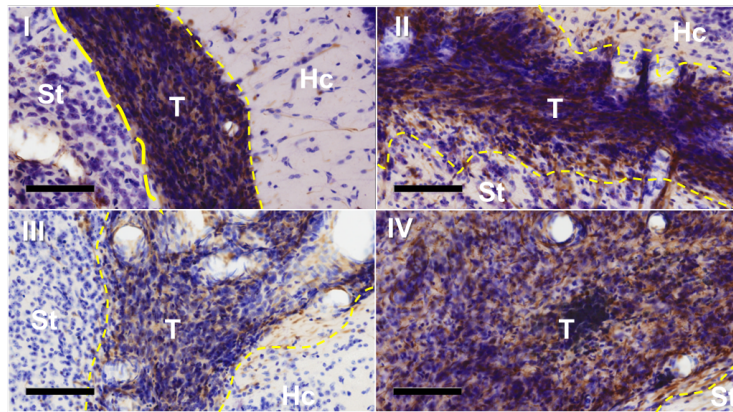
7

8 **Supp. Fig. 2.** Delay of tumor growth in orthotopic models of GBM is reflected in improved skills.

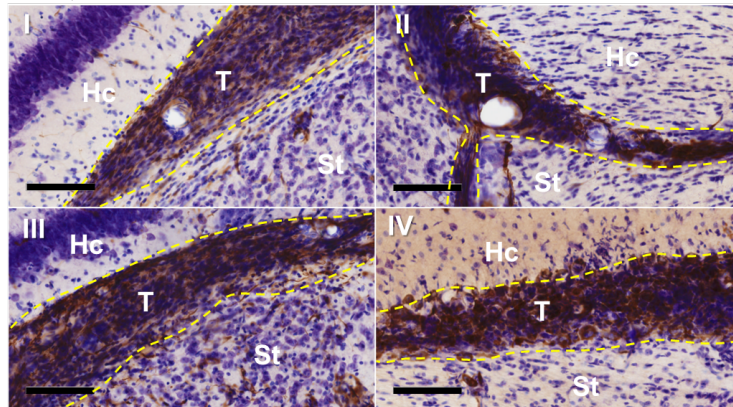
9 A, The number of segments was determined using a standard static rod test. B, Average distance

10 covered and representative movements distribution of open field test.

Vehicle

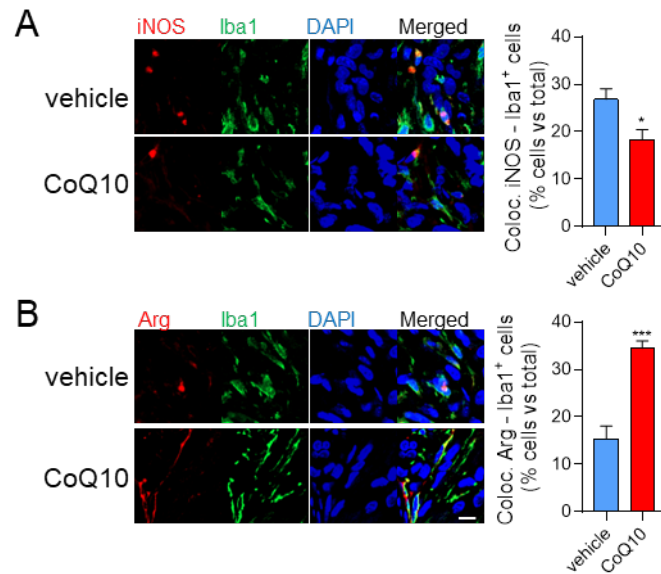


CoQ10



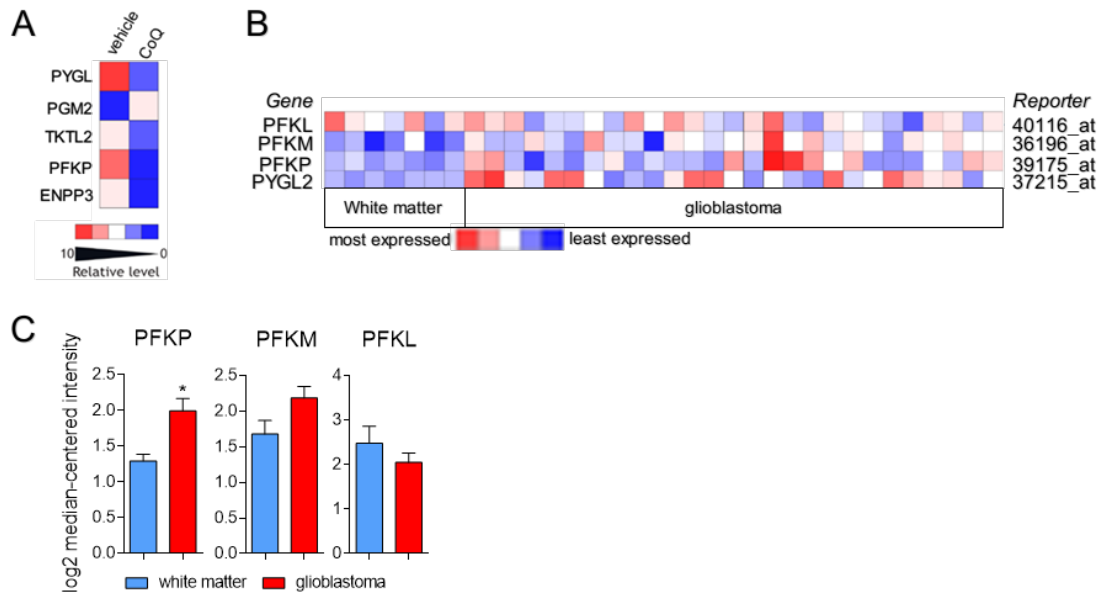
11

12 **Supp. Fig. 3.** Tumors (yellow lines - T) were in the upper striatum (St). Tumor cells invaded part
13 of the striatum and hippocampus (Hc). Scale bar = 100 μ m.

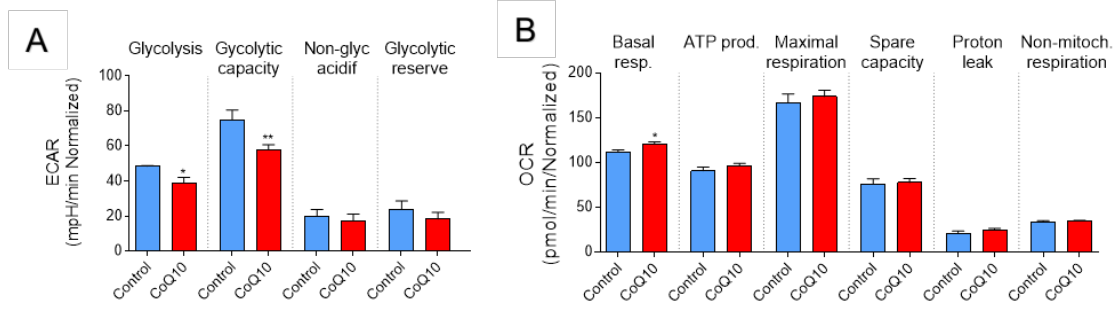


14

15 **Supp. Fig 4.** CoQ₁₀ induces a phenotypic microglial inflammatory shift in an orthotopic model
 16 of GBM. A, U251 cells were implanted intracranially into mice using stereotactic procedures.
 17 Percentage of iNOS + cells was determined by immunostaining with anti-iNOS antibody. B,
 18 Percentage of arginase I + cells was determined by immunostaining with anti-arginase I
 19 antibody.

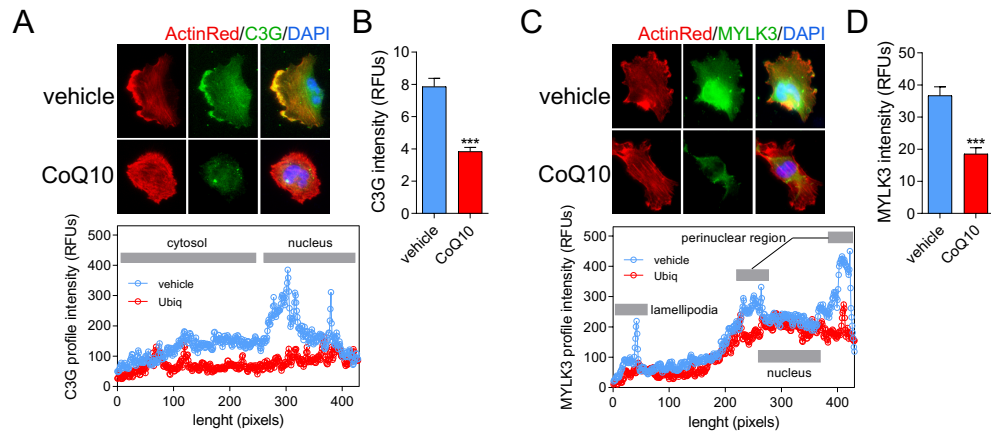


Supp. Fig. 5. In silico analysis of metabolic targets in human GBM series. A, levels of PYGL, PGM2, TKTL2, PFKP and ENPP3 obtained by proteomics from control and CoQ₁₀-treated cells for 24h. B, OncoPrint analysis of PFKL, PFKM, PFKP and PYGL2 in human brain series including glioblastoma and non-tumor white matter. C, Quantification of the P, M and L isoforms of PFK in human brain series including glioblastoma and non-tumor white matter (<https://www.oncoPrint.org/resource>). *, p<0.05.



27

28 **Supp. Fig. 6.** U251 GBM cells were incubated with 5 μ M CoQ₁₀ for 24h. A, Quantification of
 29 glycolysis, glycolytic capacity, non-glycolytic acidification and glycolytic reserve by Seahorse
 30 XFp. B, Quantification of basal respiration, ATP production, maximal respiration, spare capacity,
 31 proton leak and non-mitochondrial respiration by Seahorse XFp.



32

33 **Supp. Fig. 7.** Validation of proteomics targets by ICC: U251 GBM cells were incubated with 5
 34 μ M CoQ₁₀ for 24h. A, Representative images of immunocytochemistry of anti-C3G antibody,
 35 actin red and DAPI, and profile intensity analyzed with ImageJ. B, Representative images of
 36 immunocytochemistry of anti-MYLK3 antibody, actin red and DAPI, and profile intensity
 37 analyzed with ImageJ. ***, $P \leq 0.001$.