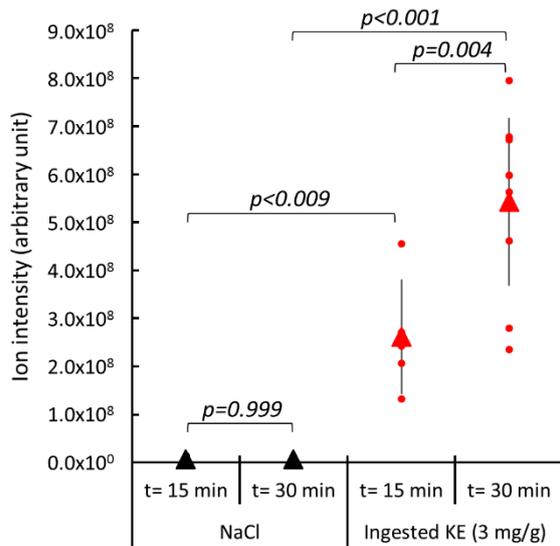
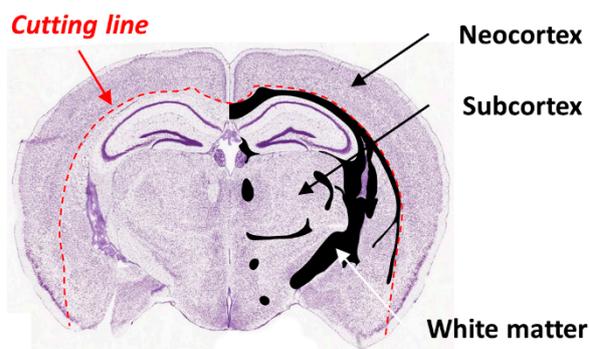


(a) Brain Butanediol after ingested KE



(b)



Caudal-diencephalon brain section (Nissl)

NAA repartition in brain

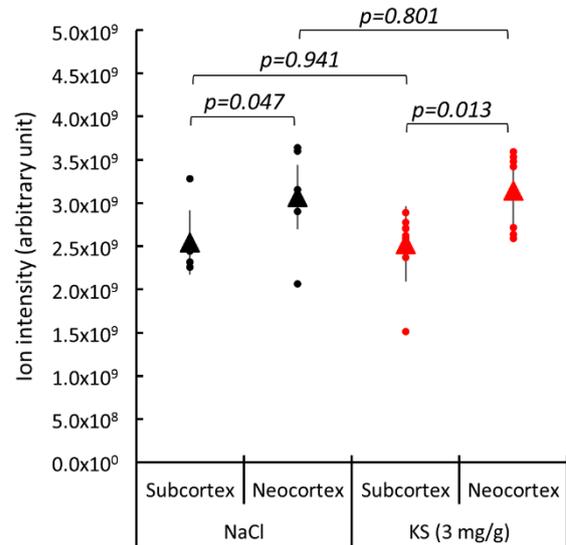


Figure S1: Brain butanediol levels after KE ingestion. Brain levels of butanediol at 15 min and 30 min after KE (3 mg/g) and NaCl intake (n=10) (a). Regional brain levels of NAA (Neuronal biomarker) after IP injection of 3 mg ketone salt/g at t=15 min (n=8). Measures were made by LC-MS from frozen sections after separation (red dotted line) of neocortex (grey matter) from the subcortex (grey and white matter) region using micro-dissection as specified on the cutting plane above (b).

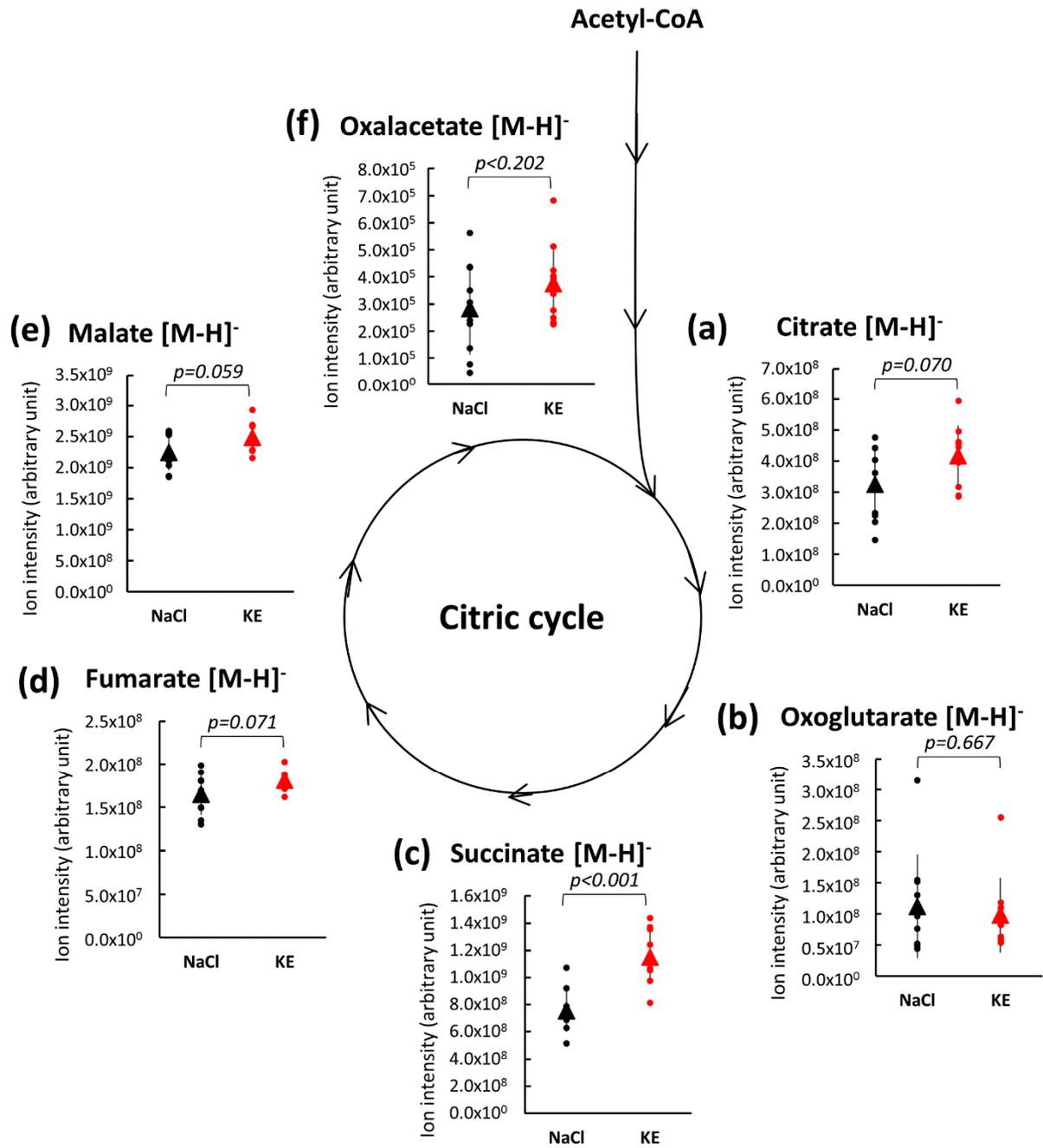


Figure S2: Brain β HB after KE ingestion. Levels of citric cycle metabolites assessed by LC-MS 30 min after the ingestion of KE (3 mg/g) or 0,9 % NaCl : citrate (a), oxoglutarate (b), succinate (c), fumarate (d), malate (e) and oxaloacetate (f).

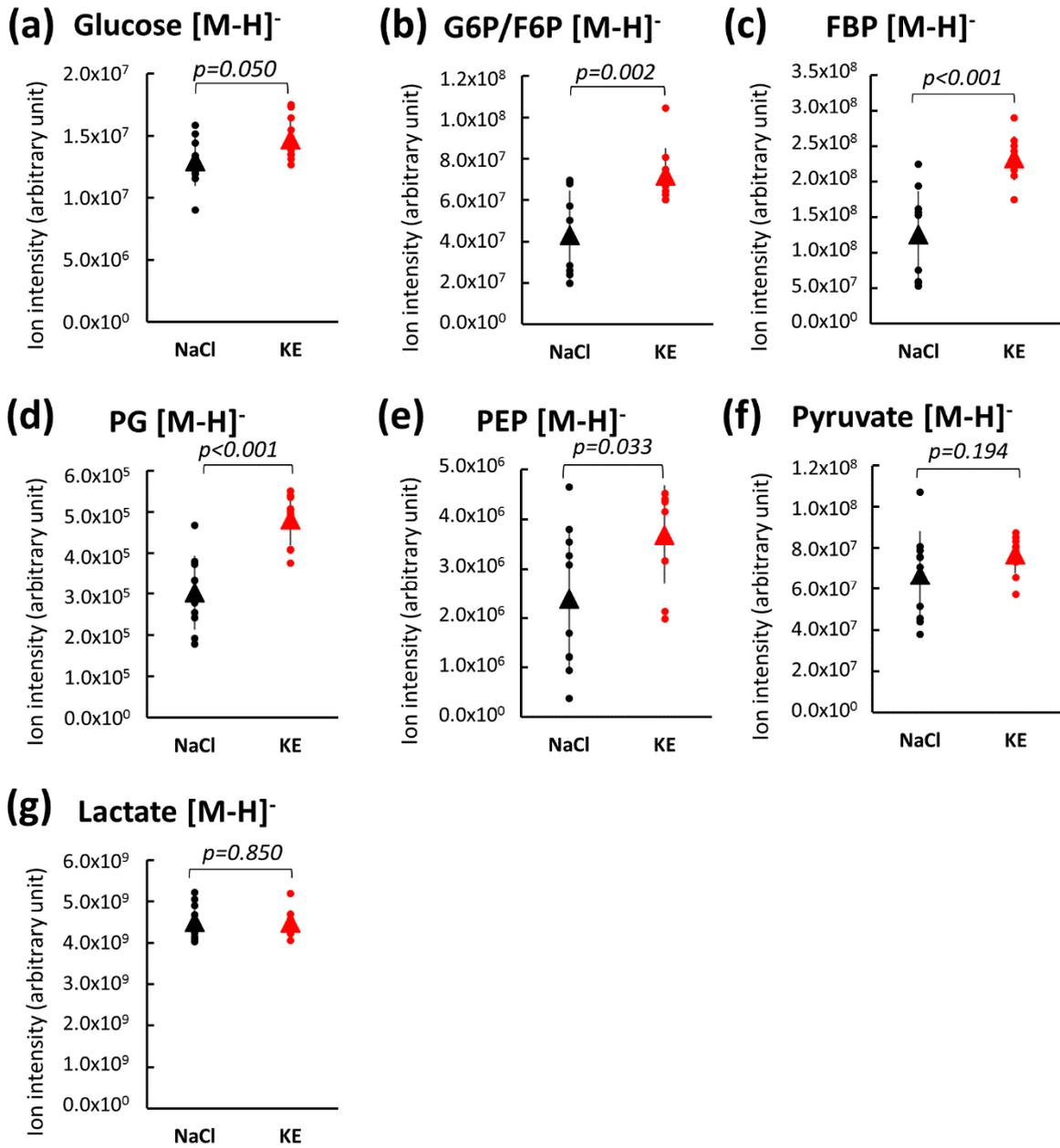


Figure S3: Brain glucose after KE ingestion. The levels of glycolytic metabolites were assessed by LC-MS 30 min after the ingestion of KE (3 mg/g) or 0,9 % NaCl (n=10): glucose (a), G6P/F6P (glucose-6-phosphate/fructose-6-phosphate) (b), FBP (fructose-1,6- biphosphate) (c), PG (phosphoglycerate) (d), PEP (phosphoenolpyruvate) (e), pyruvate (f) and lactate (g).