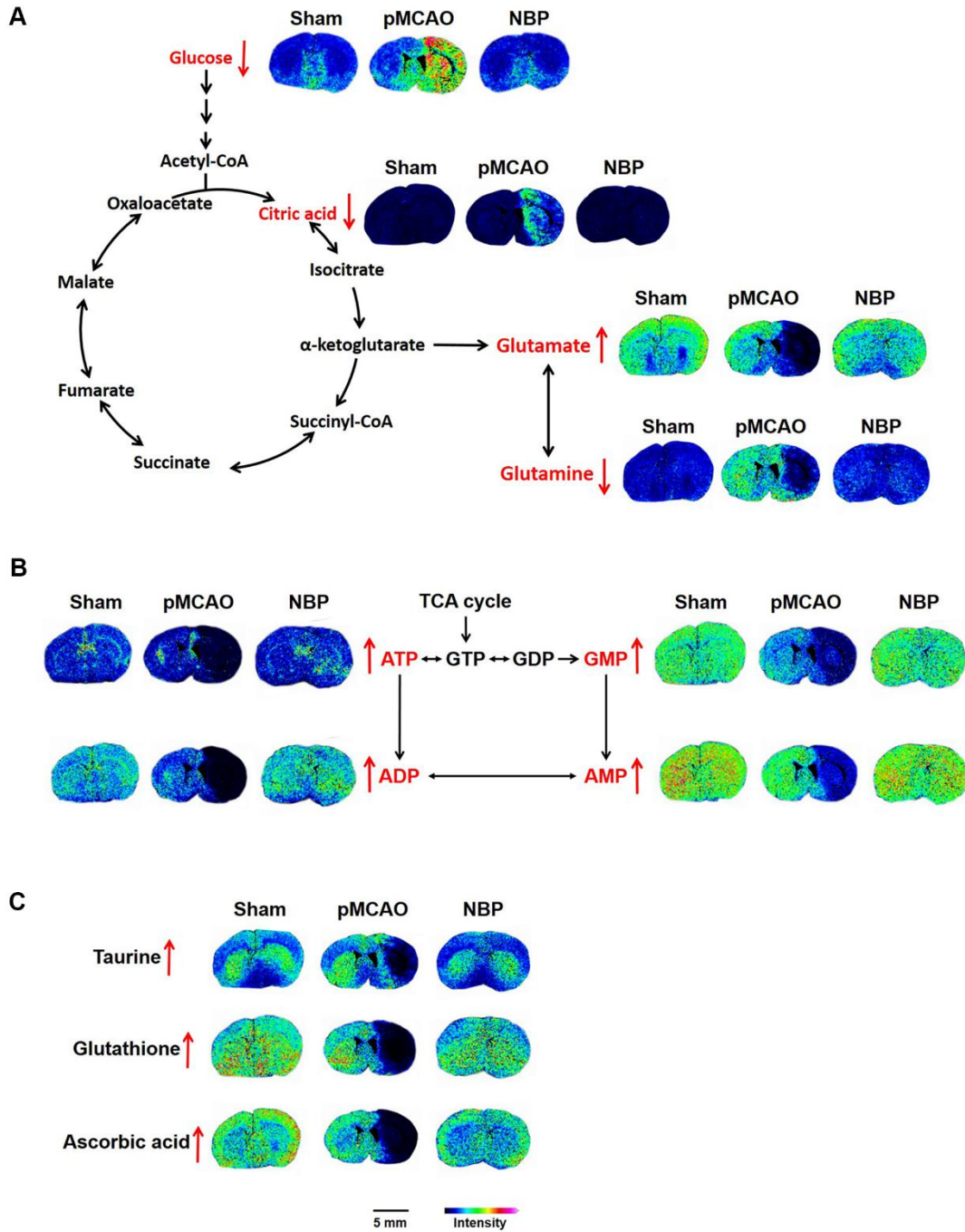


SUPPLEMENTARY FIGURE



**Supplementary Figure 1. NBP alleviated the abnormal accumulation of glucose and citric acid, improved the levels of metabolites involved in the glutamate-glutamine cycle. (A), enhanced ATP metabolism (B), and increased the levels of antioxidants (C) in a rat model of pMCAO. MALDI-TOF-MS imaging of glucose ( $215 \pm 0.2$  Da), citric acid ( $191.05 \pm 0.1$  Da), glutamate ( $146.07 \pm 0.1$  Da), glutamine ( $145.07 \pm 0.1$  Da), ATP ( $505.85 \pm 0.1$  Da), ADP ( $425.97 \pm 0.1$  Da), AMP ( $346.01 \pm 0.1$  Da), GMP ( $362.01 \pm 0.1$  Da), taurine ( $124.05 \pm 0.1$  Da), glutathione ( $306.05 \pm 0.1$  Da), and ascorbic acid ( $175.05 \pm 0.1$  Da). The spatial resolution was set to  $100 \mu\text{m}$ . Scale bar = 5 mm. Sham: sham surgery group; pMCAO: permanent middle cerebral artery occlusion group; NBP: dl-3-n-butylphthalide-treated group.**