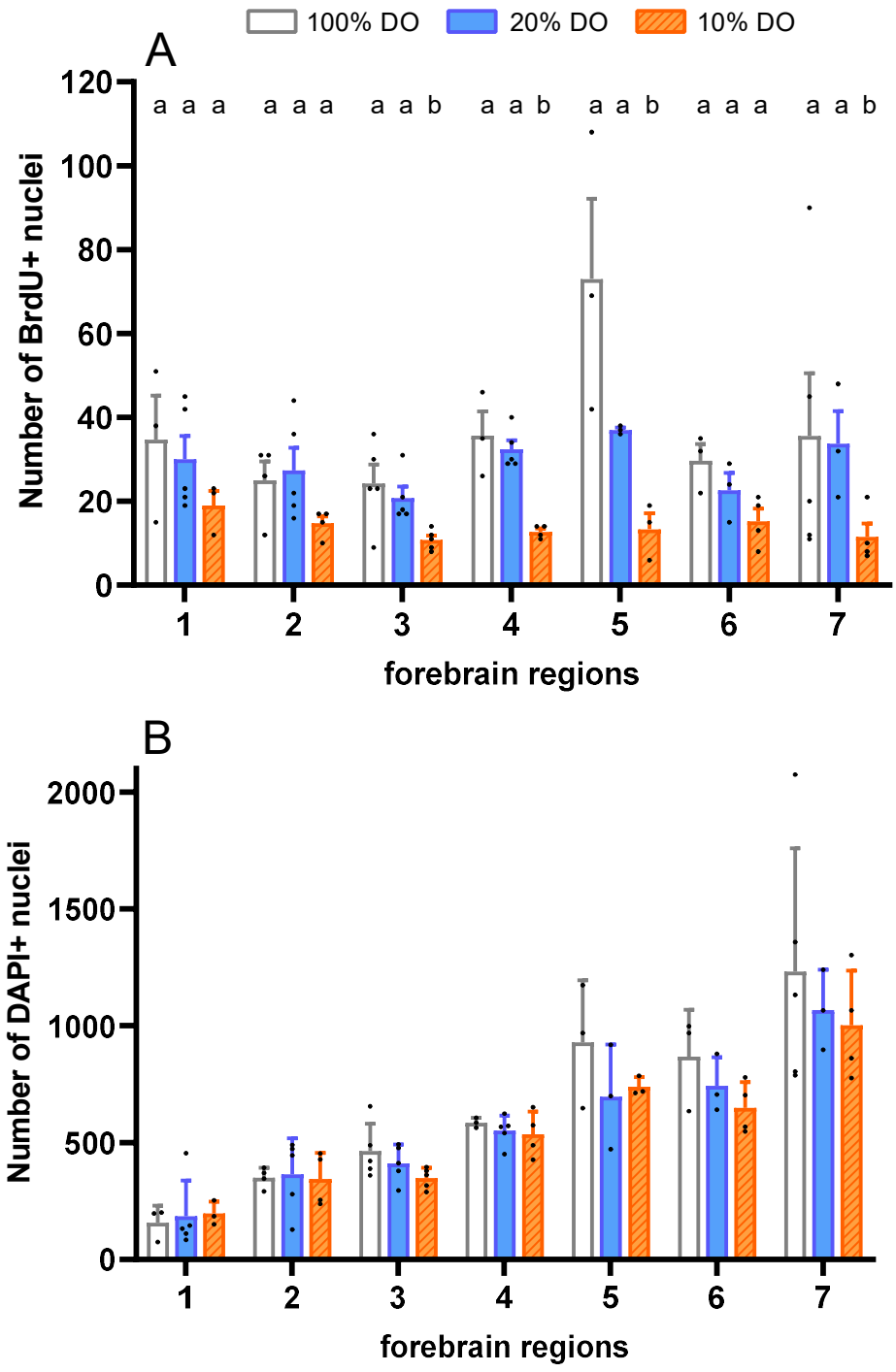

Fig. S1. Effects of hypoxia exposure on forebrain proliferation in 5 dpf zebrafish larvae. Larval zebrafish were exposed for 16 h to 100%, 20% or 10% dissolved O_2 (DO) in the presence of bromodeoxyuridine (BrdU) to label dividing cells. (A) Effects of DO saturation levels on the number of BrdU-positive nuclei within seven defined forebrain regions. (B) Effects of DO saturation levels on the number of DAPI-positive nuclei within seven defined forebrain regions. The number of BrdU- and DAPI-positive nuclei were counted on an average of 2.9 ± 0.4 sections (mean ± s.e.m) per forebrain region for each larva (*n*=3-5 larvae per treatment). Statistical differences between values were determined by two-way ANOVA followed by a Holm-Sidak test for multiple comparison ($P<0.05$). Differences between treatments within a given forebrain region are indicated by different letters. The seven forebrain regions used for BrdU quantification along the rostral to caudal axis included: 1) olfactory bulb; 2) pallium and subpallium; 3) pallium, subpallium, and anterior commissure; 4) pallium, ventral thalamus, preoptic region; 5) habenula, dorsal thalamus, ventral thalamus, and preoptic region; 6) habenula, dorsal thalamus, ventral thalamus, and rostral hypothalamus; 7) torus longitudinalis, pretectum, dorsal thalamus, ventral thalamus, posterior tuberculum, and rostral hypothalamus. See Figure 2 and Result section for further details. Values are means + s.e.m.

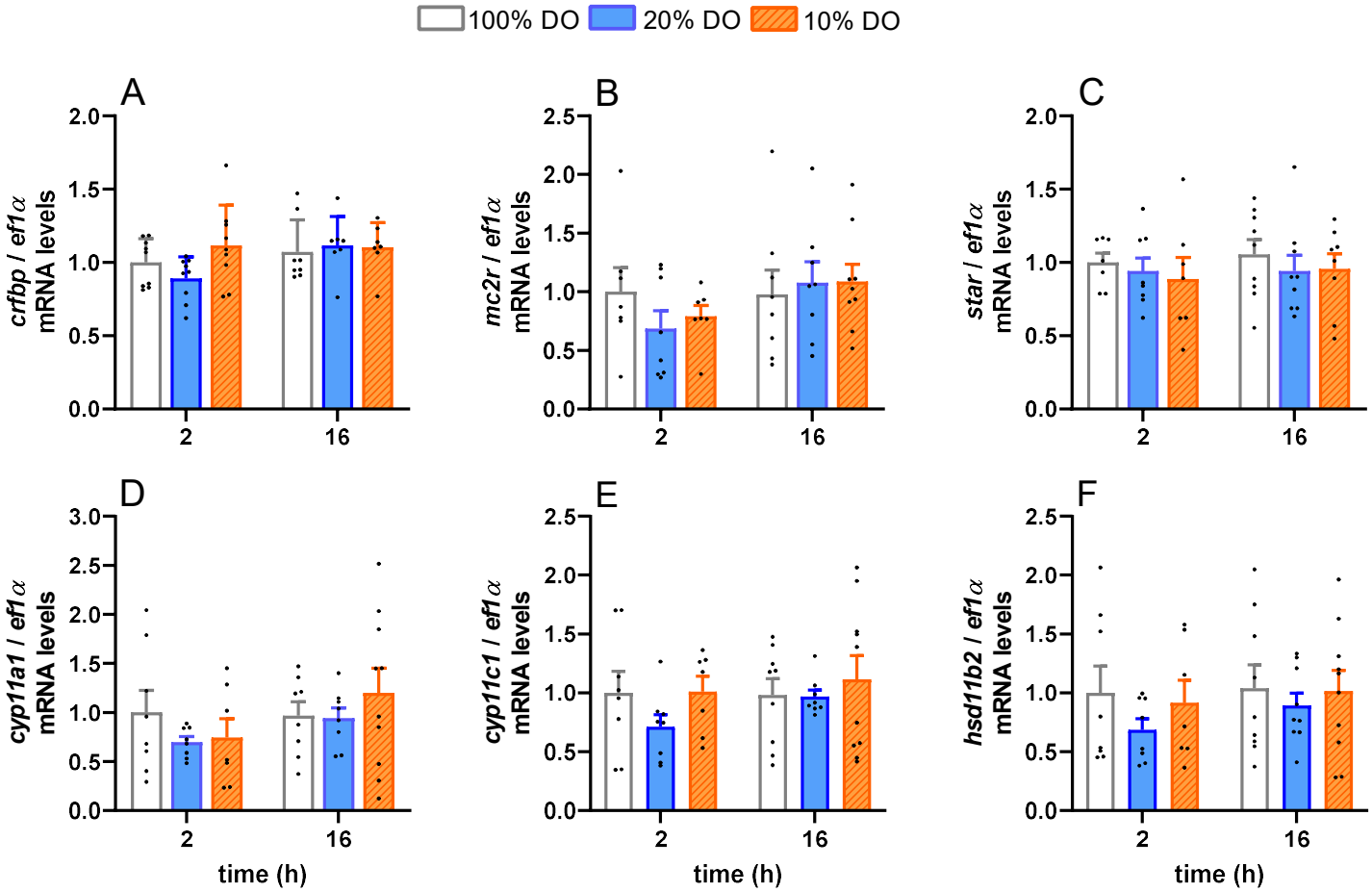

Fig. S2. Effects of exposing 5 dpf zebrafish larvae for a 2 or 16 h period to 100%, 20% or 10% dissolved O_2 (DO) saturation levels on the mRNA levels of corticotropin-releasing factor binding protein (*crfbp*; A), melanocortin 2 receptor (*mc2r*; B), steroidogenic acute regulatory protein (*star*; C), cytochrome P450 side-chain cleavage (*cyp11a1*; D), 11β-hydroxylase (*cyp11c1*; E), and 11β-hydroxysteroid dehydrogenase 2 (*hsd11b2*; F). Gene expression is normalized to the)1fe(1 rotcaf noitagnole fo noisserpxe and is expressed relative to the 2 h 100% DO treatment. A two-way ANOVA was performed to determine the effects of time and O_2 treatment on the mRNA levels of each gene. No statistical difference was observed (P>0.05). Values are means + s.e.m. (n=7-10).