

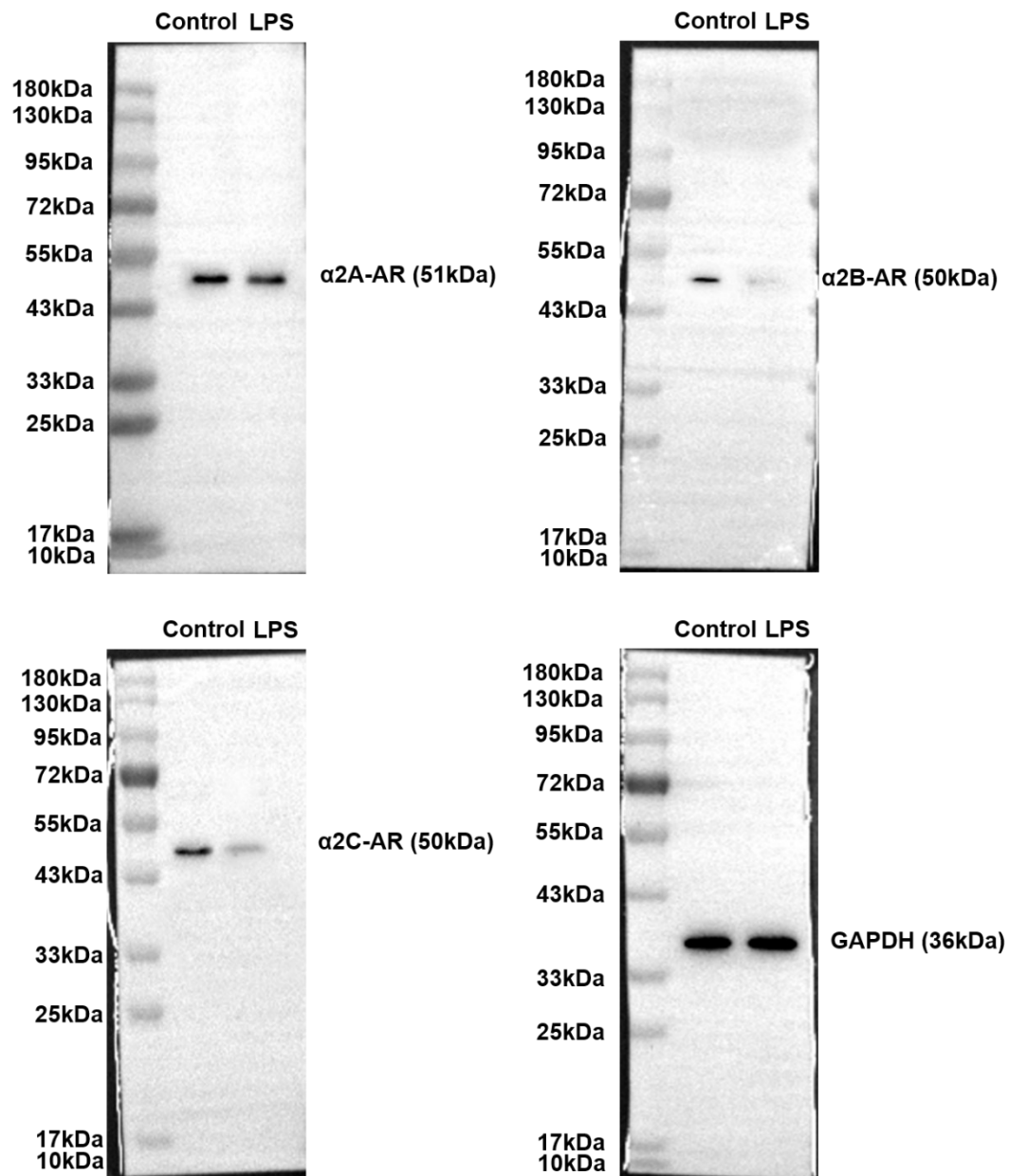


Figure S1. LPS decreased the expression of $\alpha 2A$ -adrenoceptor subtype in cultured NSCs, blots origin images and replicates of Figure 4E.

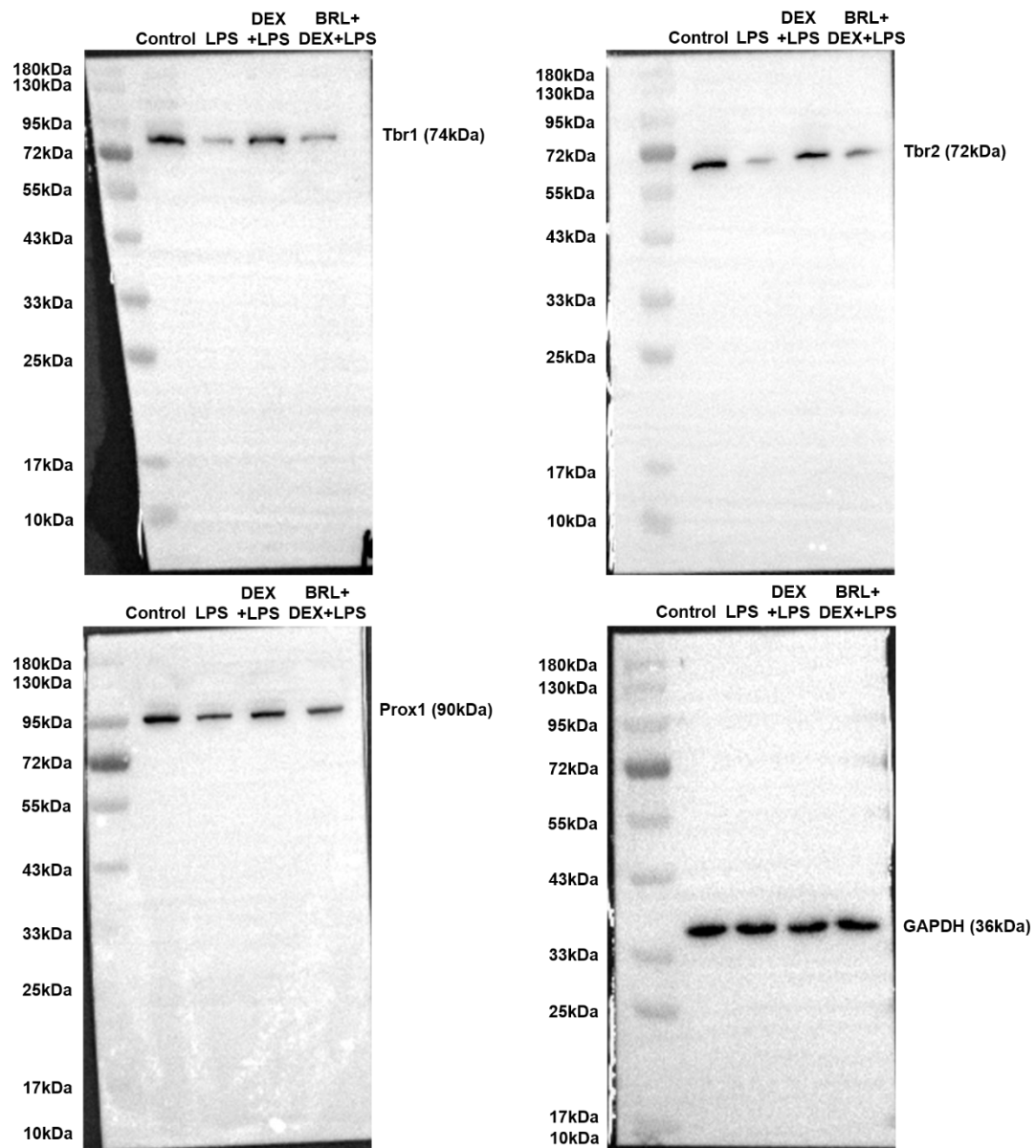


Figure S2. The $\alpha 2A$ -adrenoceptor inhibitor BRL-44408 reversed the effects of dexmedetomidine on the expression of Tbr1, Tbr2 and Prox1 in cultured NSCs treated with LPS, blots origin images and replicates of Figure 5I.

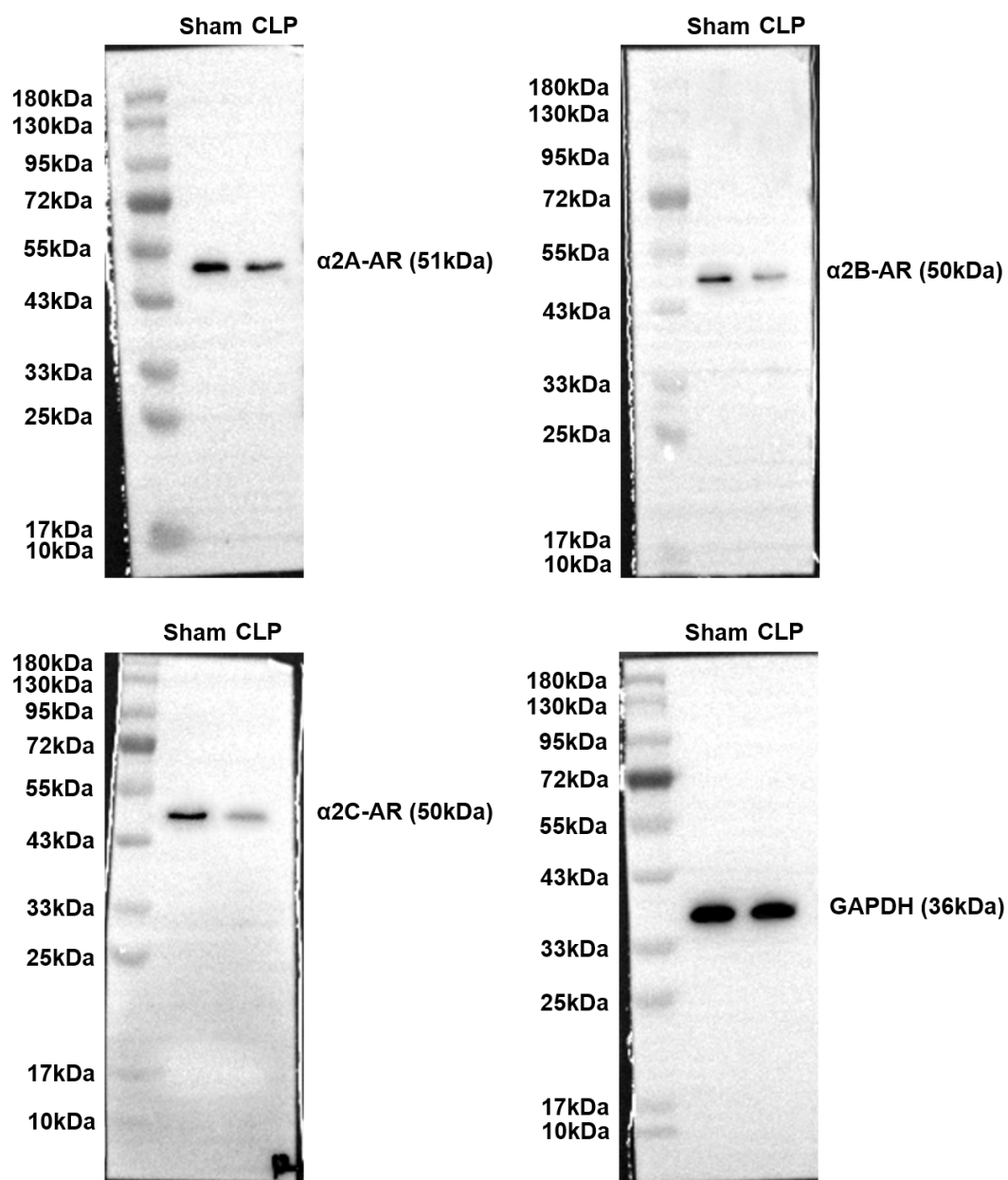


Figure S3. Sepsis induced the decrease in the expression of $\alpha 2A$ -adrenoceptor subtype in the hippocampus, blots origin images and replicates of Figure 7G.

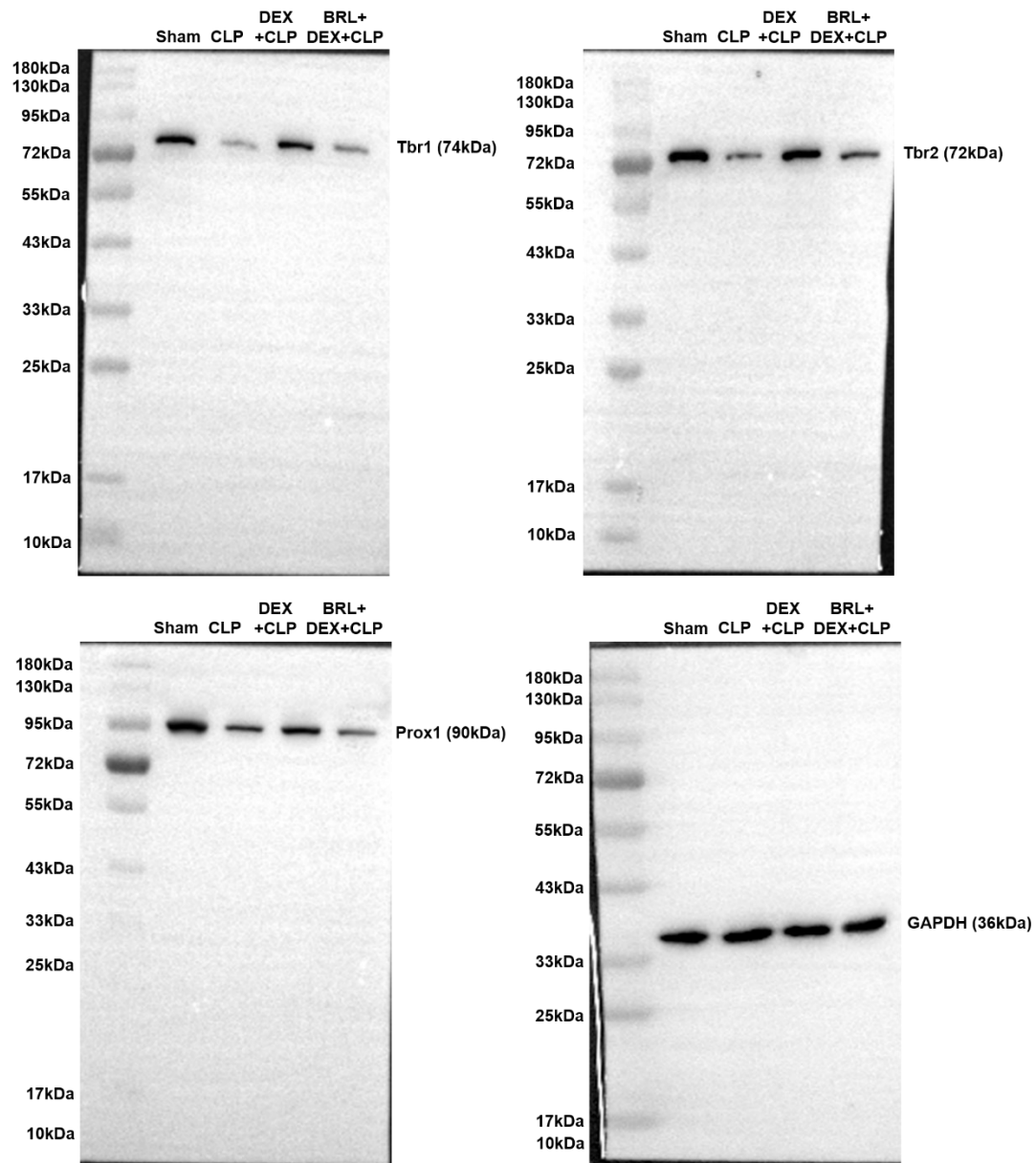


Figure S4. BRL-44408 reversed the effects of dexmedetomidine on neurogenesis-related transcription factors, hippocampal neurogenesis and cognitive function in mice with sepsis-associated encephalopathy, blots origin images and replicates of Figure 8I.

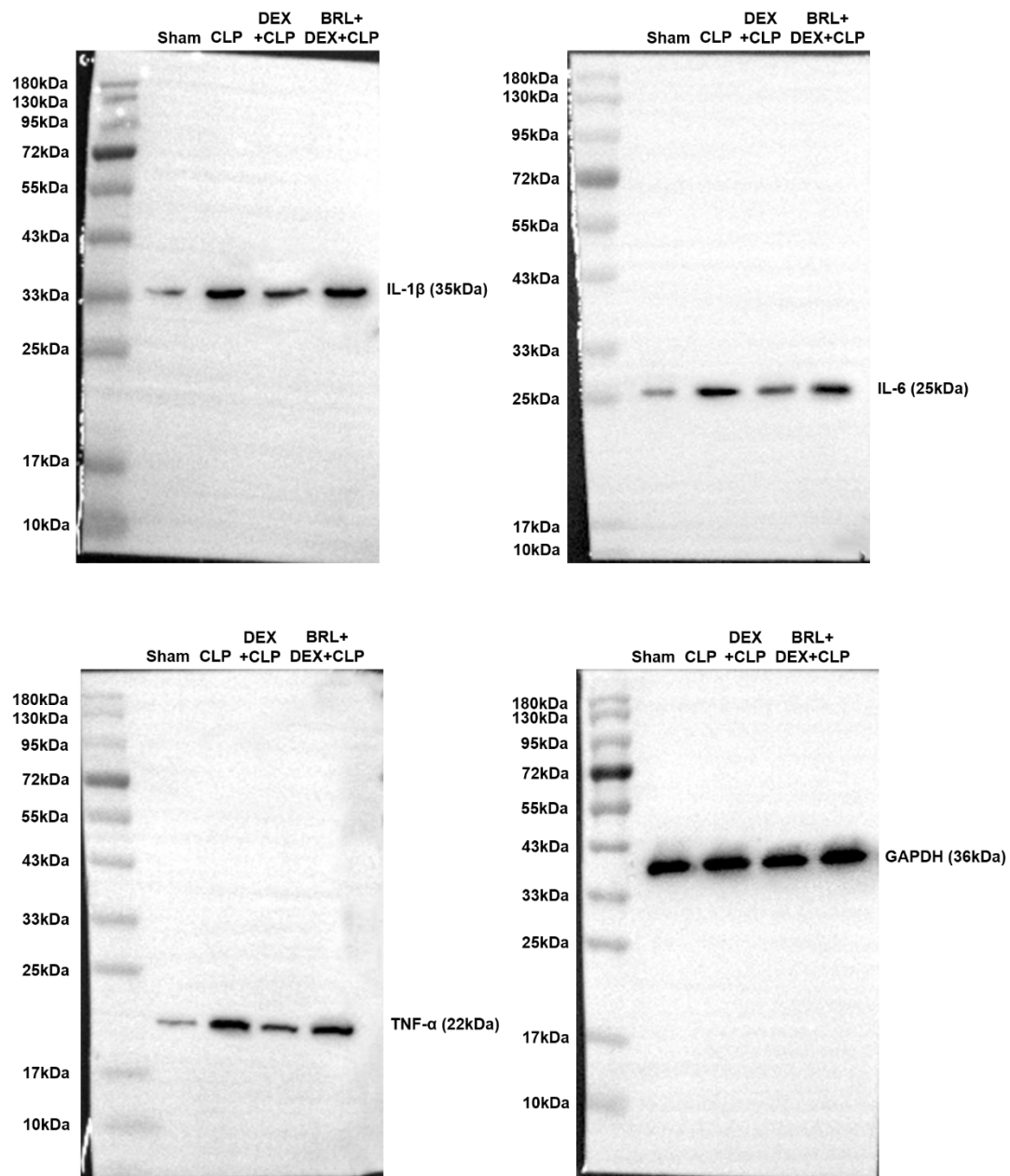


Figure S5. BRL-44408 reversed the effects of dexmedetomidine on astrocyte-related inflammatory cytokines production in mice with sepsis-associated encephalopathy, blots origin images and replicates of Figure 9I.