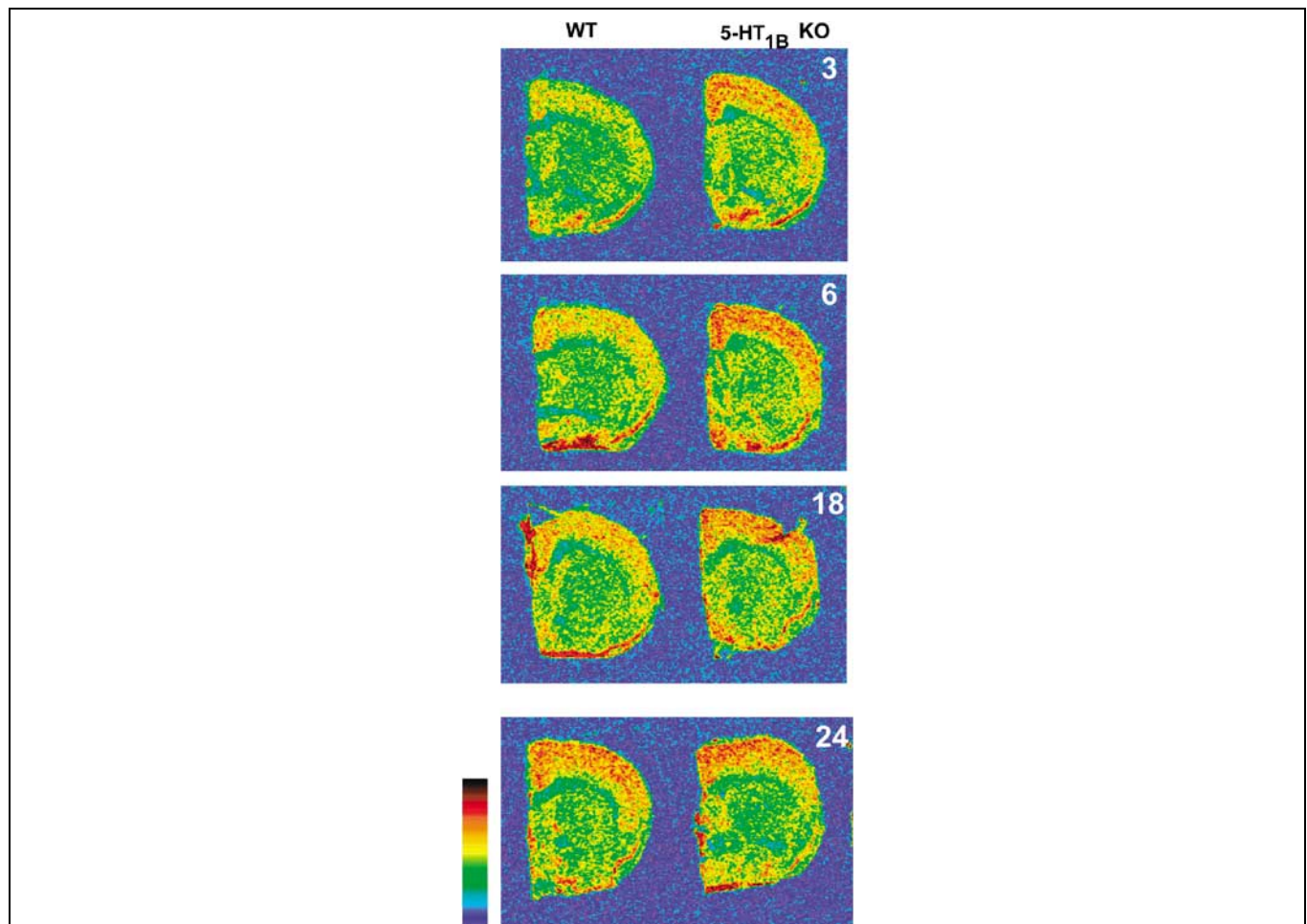


IMAGE

Upregulated sirtuin 5 gene expression in frontal cortex of serotonin 1b receptor knock out mice

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Our studies have demonstrated that altering serotonin (5-HT) signaling through the disruption of the 5-HT_{1B} presynaptic autoreceptor can modulate the onset of selected age-related events in the central nervous system. A clear upregulation of sirtuin 5 (Sirt5) gene expression was identified in the brain of serotonin 1b receptor knock out (Htr1bKO) mice. Sirtuin genes are major cellular components of age-related pathways. The role of altered Sirt5 transcripts in the age-related phenotype in Htr1bKO mice is currently under investigation, including an early mechanism for altering the onset of age-related phenotypes, since Sirt5 transcript changes preceded the appearance of age-related behavioral and molecular changes. Representative color-coded photomicrographs of sirtuin 5 gene (Sirt5) ³⁵S *in situ* hybridization histochemistry at 3, 6, 18 and 24 months of age. Color barcode indicates increased signal intensity. For more information on this topic see the paper by Sibille *et al.* on pages 1042–1056.