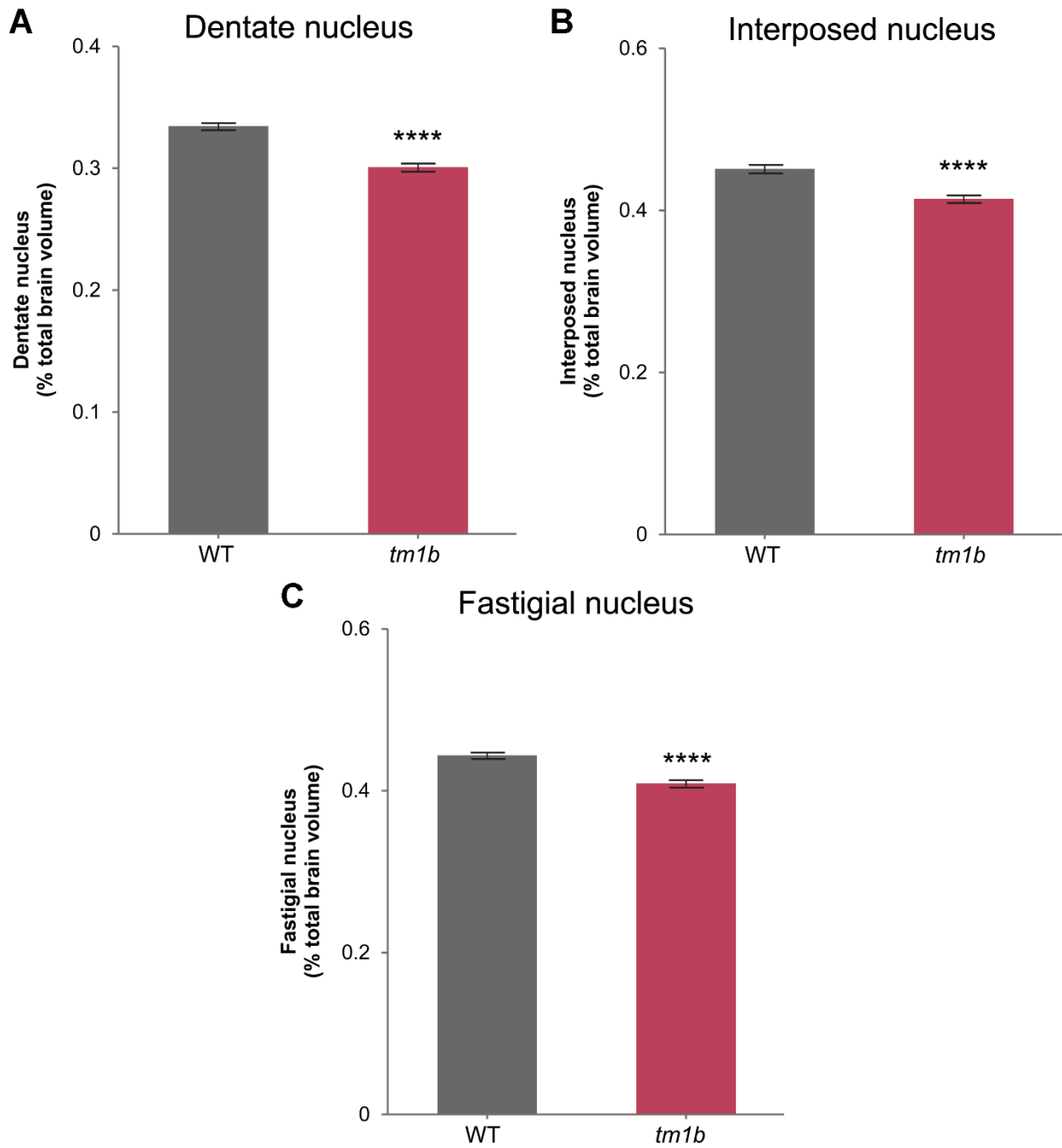
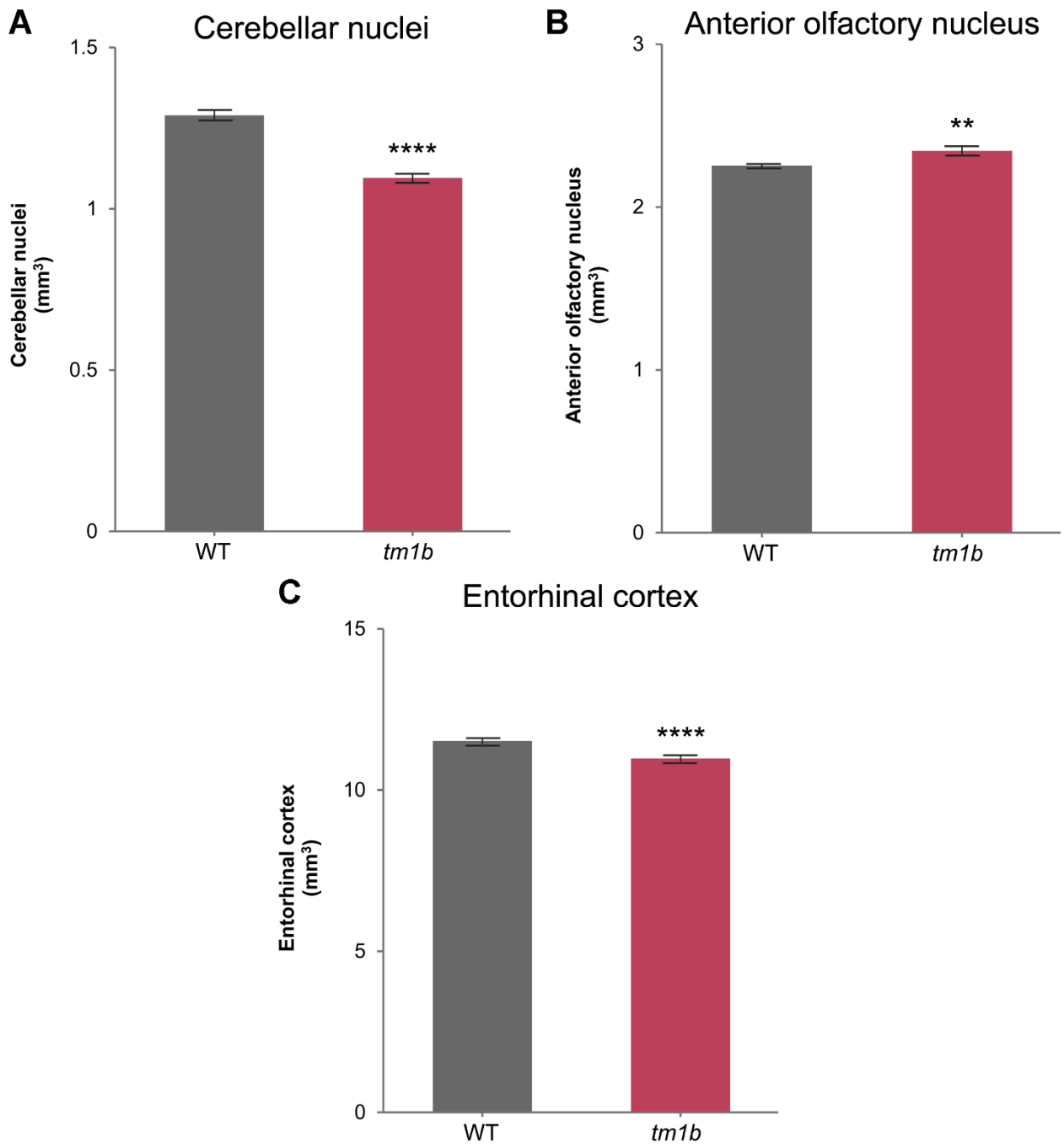


Additional File 4



Relative (% total brain volume) volumetric differences in the dentate nucleus, interposed nucleus, and fastigial nucleus in *Pdzd8^{tm1b}* mice (n = 32; 10♂, 22♀) and WT controls (n = 17; 7♂, 10♀) determined by high-resolution structural magnetic resonance imaging. **A** Dentate nucleus relative volume is decreased in *Pdzd8^{tm1b}* mice by $10.06 \pm 0.88\%$ (unpaired *t*-test: $t = 8.45$, $p < 0.0001$). **B** Interposed nucleus relative volume is decreased in *Pdzd8^{tm1b}* mice by $8.21 \pm 0.80\%$ (unpaired *t*-test: $t = 6.59$, $p < 0.0001$). **C** Fastigial nucleus relative volume is decreased in *Pdzd8^{tm1b}* mice by $7.80 \pm 0.85\%$ (unpaired *t*-test: $t = 6.70$, $p < 0.0001$). *tm1b*, *Pdzd8^{tm1b}* homozygous; WT, wild-type. **** $p < 0.0001$ versus WT.



Absolute (mm³) volumetric differences in the cerebellar nuclei, accessory olfactory bulb, and components of the primary olfactory cortex in *Pdzd8^{tm1b}* mice (n = 32; 10♂, 22♀) and WT controls (n = 17; 7♂, 10♀) determined by high-resolution structural magnetic resonance imaging. **A** Cerebellar nuclei absolute volume is decreased in *Pdzd8^{tm1b}* mice by $15.03 \pm 1.04\%$ (unpaired *t*-test: *t* = 9.99, *p* < 0.0001). **B** Anterior olfactory nucleus absolute volume is increased in *Pdzd8^{tm1b}* mice by $4.04 \pm 1.01\%$ (unpaired *t*-test: *t* = 3.65, *p* = 0.001). **C** Entorhinal cortex absolute volume is decreased in *Pdzd8^{tm1b}* mice by $4.73 \pm 0.82\%$ (unpaired *t*-test: *t* = 4.16, *p* < 0.0001). *tm1b*, *Pdzd8^{tm1b}* homozygous; WT, wild-type. ***p* < 0.01, *****p* < 0.0001 versus WT.