



Supplementary Fig. 3. Pharmacological changes in the tonic inhibitory current of CA1 hippocampus are consistent with increased expression of $\alpha 4\beta\delta$ receptors after the onset of puberty. (a) The tonic GABAergic current was recorded from the soma of pyramidal cells in CA1 hippocampus with whole cell patch clamp techniques (see Methods) at a holding potential of -50 mV. Because $\alpha 4\beta\delta$ -containing receptors have an increased sensitivity to the GABA agonist gaboxadol (GBX)¹⁶, but are uniquely inhibited by lanthanum (La^{3+})^{16,17}, the La^{3+} -sensitive GBX-induced current was assessed in slices from mice after THP Wd or the onset of puberty when $\alpha 4$ and δ subunit expression are increased (Fig. 3). To this end, current generated by 30 μ M GBX was assessed as the deflection in the holding current before and after bath application of 300 μ M La^{3+} as we have described. GBX generated a significantly larger current after puberty (Pub) or after THP Wd than in slices from pre-pubertal (Pre-pub) mice, and this current was reduced $50 - 70\%$ by La^{3+} . The profile in pubertal mice treated with replacement THP was similar to that in pre-pubertal mice, suggesting that changes occurring after the onset of puberty are due to a withdrawal from THP. (a) Representative traces; (b) Mean \pm SEM. $n = 5 - 6$ cells for each group. * $P < 0.05$ vs. Pre-pubertal values, ** $P < 0.05$ vs. GBX alone. GBX, gaboxadol