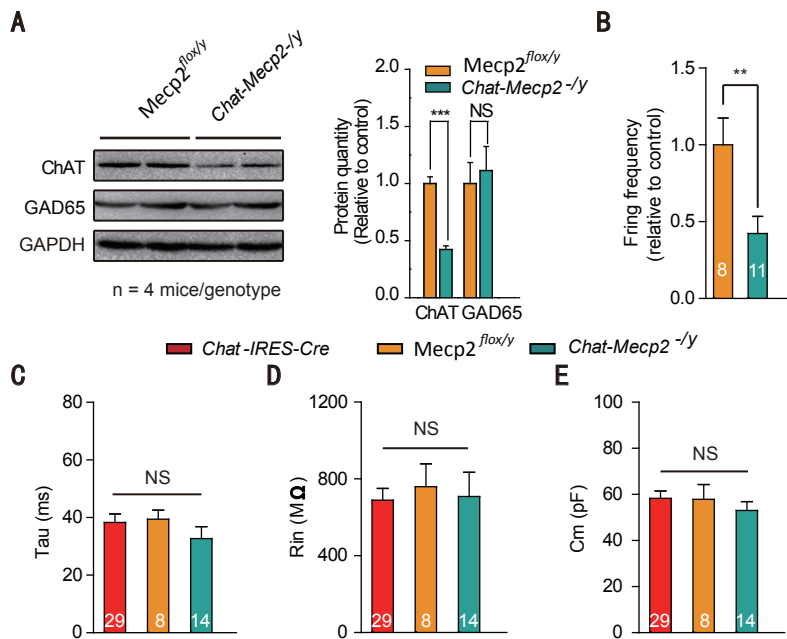


Supplementary Figure - 3 Li



Supplementary Figure 3. Protein analysis of the BF identified decreased expression of ChAT in *Chat-Mecp2^{-y}* mice and reduced spontaneous firing of BF cholinergic neurons compared with *Mecp2^{fllox/y}* mice. **A**, Left: Immunoblotting of ChAT and GAD65 in BF extracts prepared from *Mecp2^{fllox/y}* and *Chat-Mecp2^{-y}* mice. Each lane was loaded with 40 μ g of protein, with GAPDH as the loading control, and normalized to *Mecp2^{fllox/y}* levels. Right: Quantification of ChAT and GAD65 proteins in *Mecp2^{fllox/y}* and *Chat-Mecp2^{-y}* mice. **B**, Quantification of the firing frequency from BF cholinergic neurons in *Chat-Mecp2^{-y}* mice normalized by *Mecp2^{fllox/y}* mice. **(C-E)** Quantitative analysis of membrane time constant (τ), input resistance (Rin) and membrane capacitance (Cm) of cholinergic neurons in slices from *Chat-IRES-Cre*, *Mecp2^{fllox/y}* and *Chat-Mecp2^{-y}* mice. Error bars are means \pm s.e.m. *P*-values were calculated by one-way ANOVA with Tukey's post hoc comparison. * *P* < 0.05, ** *P* < 0.01, *** *P* < 0.001.