

CORRECTION

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Correction to: Pathophysiology of and therapeutic options for a *GABRA1* variant linked to epileptic encephalopathy

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Correction to: Mol Brain (2019) 12:92

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Following publication of the original article [1], the authors reported errors in Fig. 4. Specifically, a wrong actin blot is presented in Fig. 4a. In this Correction, the corrected version of Fig. 4 is shown.

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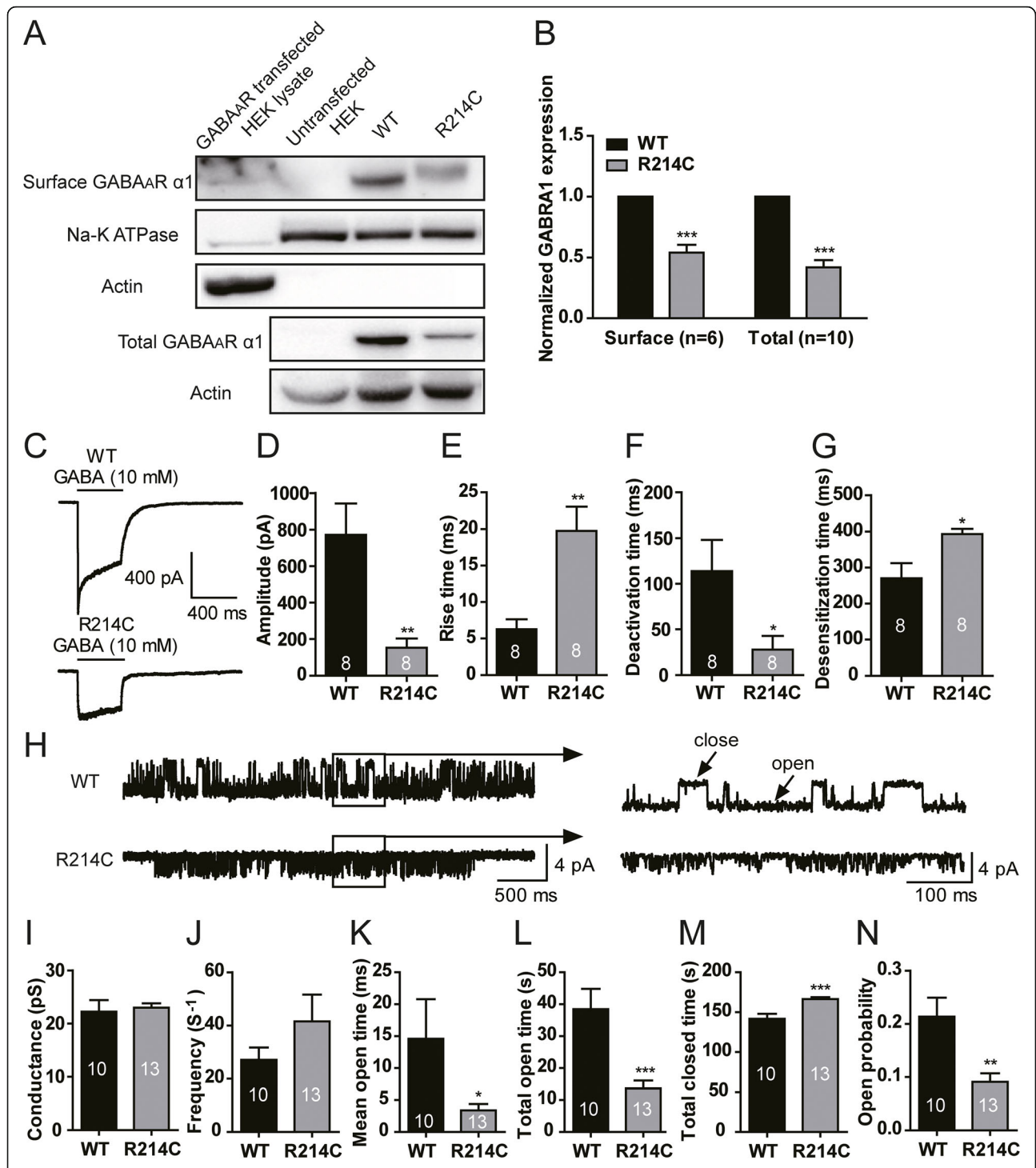


Fig. 4 The R214C mutation resulted in reduced surface and total expression levels of the $\alpha 1$ subunit, and altered the kinetic and single channel properties of GABA_ARs. **a** Representative blots of biotinylation samples for surface receptor expression and cell lysates for total receptor expression from HEK293 cells expressing either WT or R214C GABA_ARs. **b** Quantification of surface $\alpha 1$ subunits normalized to Na⁺/K⁺ ATPase ($n = 6$), and total $\alpha 1$ subunits normalized to β -actin ($n = 10$). Statistical differences were determined using student's *t*-test by comparing to expression levels of WT GABA_AR expressing cells (**** $p < 0.001$). **c** Representative traces of GABA currents recorded in excised macro-patch membrane under outside-out configuration from WT or R214C GABA_AR expressing cells. Currents were evoked by rapidly perfusion of 10 mM GABA to the membrane patch for 400 ms. Quantification of averaged peak current amplitudes (**d**), 10–90% rise time (**e**), deactivation rate (**f**) and desensitization (**g**) in WT ($n = 8$) or R214C ($n = 8$) GABA_AR expressing cells. **h** Representative single channel current traces recorded under cell-attached configuration with a pipette containing GABA (1 mM) at a holding potential of +100 mV from cells expressing WT or R214C GABA_ARs. Quantified average of conductance (**i**), opening frequency (**j**), mean open time (**k**), total open time (**l**), total closed time (**m**), and open channel probability (**n**) of WT ($n = 10$) or R214C ($n = 13$) GABA_ARs. Statistical differences were determined using student's *t*-test by comparing to WT GABA_AR cells (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$)