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Supplemental Information

A Role of BK Channel in Regulation of Ca²⁺ Channel in Ventricular Myocytes by Substrate Stiffness

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Supporting Material

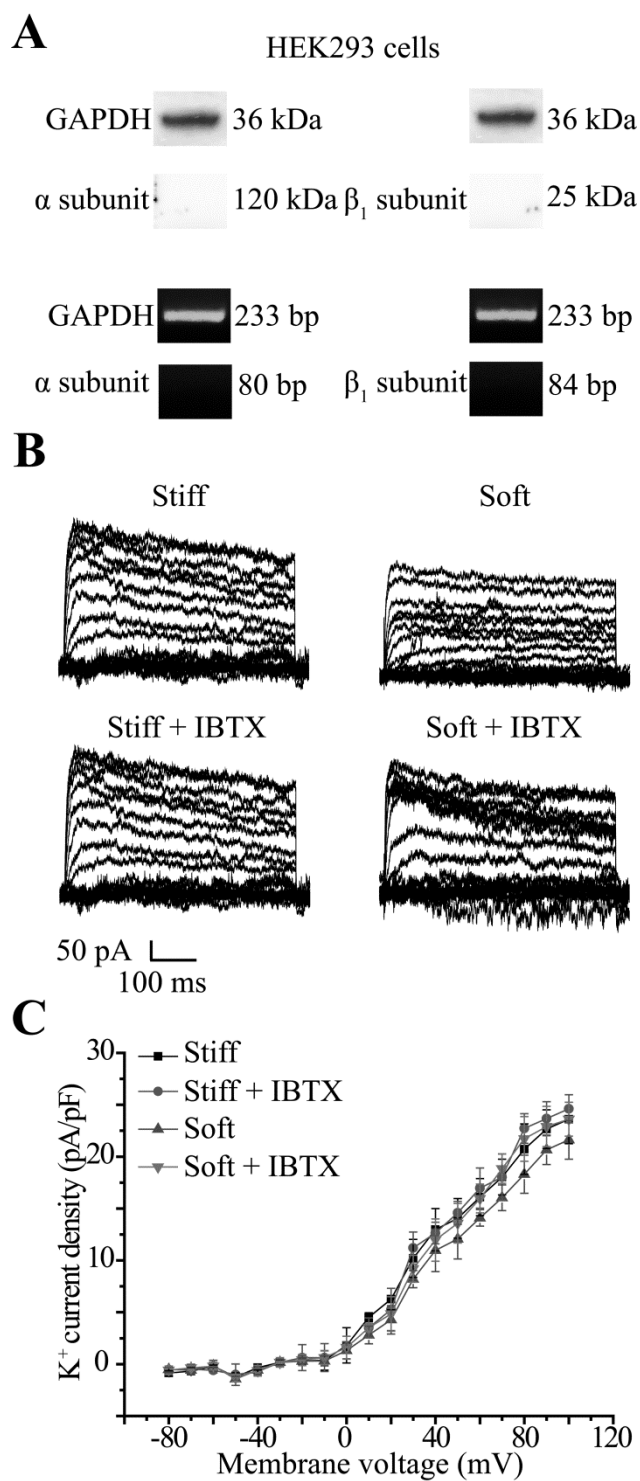


Fig. S1 Endogenous expression of BK channel α and β_1 subunits and K⁺ currents in HEK293

(A) Representative western blots showing lack of protein (upper panels) and mRNA expression (lower panels) of the BK channel α and β_1 subunits in HEK293 cells on the soft and stiff substrates. (B) Representative whole-cell recordings of K⁺ channel

currents from HEK293 cells on the soft and stiff substrates (upper panels) and 10 min after application of 100 nM IBTX (lower panels). (C) Summary of the mean I-V relationship curves of the K^+ channel currents from 11 cells in three preparations.

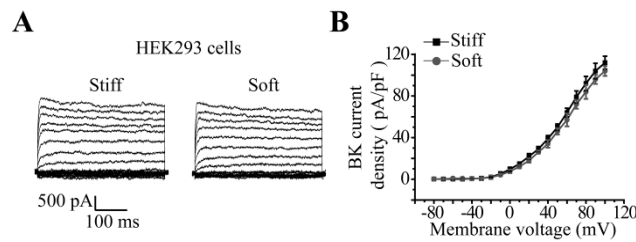
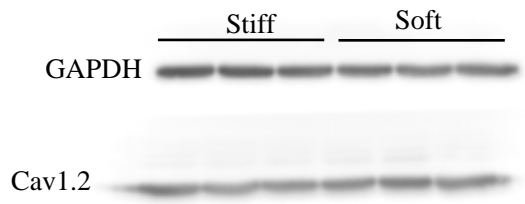


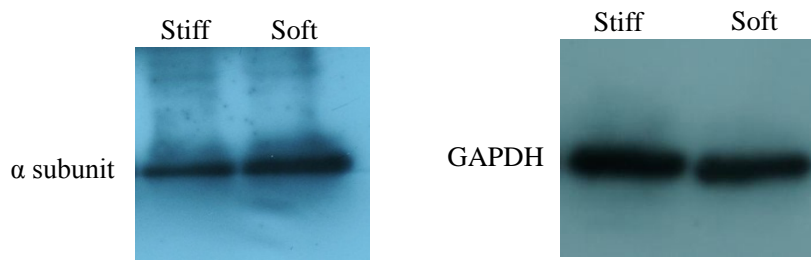
Fig S2 Effect of substrate stiffness on STREX-deleted BK channel current.

(A) Representative whole-cell recordings of Ba^{2+} currents from HEK cells heterologously expressing the BK channel STREX-deleted α and β_1 subunits cultured on the soft and stiff substrates. (B) Mean I-V relationship curves from 9 cells in three preparations.

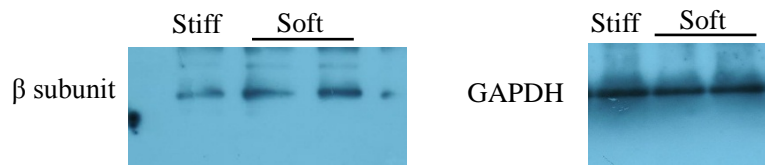
Original western blot results of Cav1.2 in ventricular myocytes.



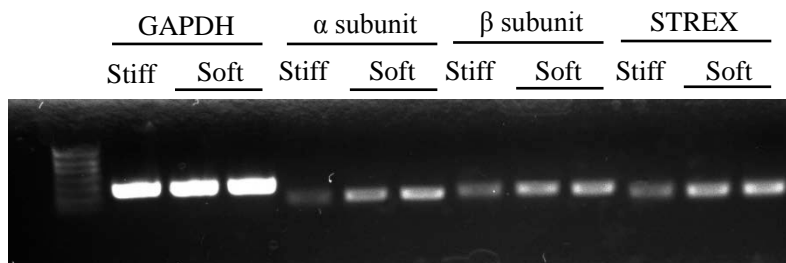
Original western blot results of α subunit from BK in ventricular myocytes.



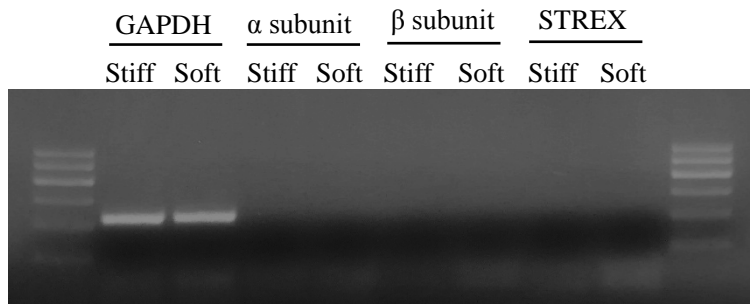
Original western blot results of β subunit from BK in ventricular myocytes.



Original PCR results from ventricular myocytes.



Original PCR results of HEK293 cells.



Original western blot results of HEK293 cells.

