Modulation of KV4.3-KChIP2 Channels by IQM-266: Role of DPP6 and KCNE2

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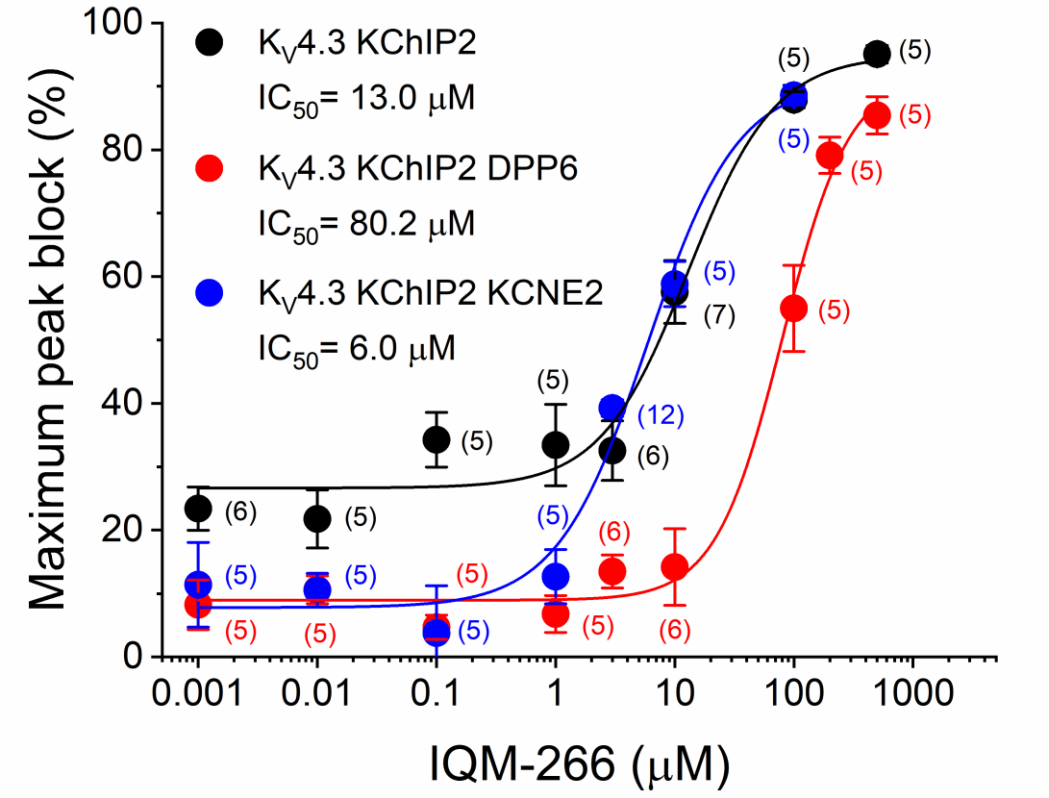
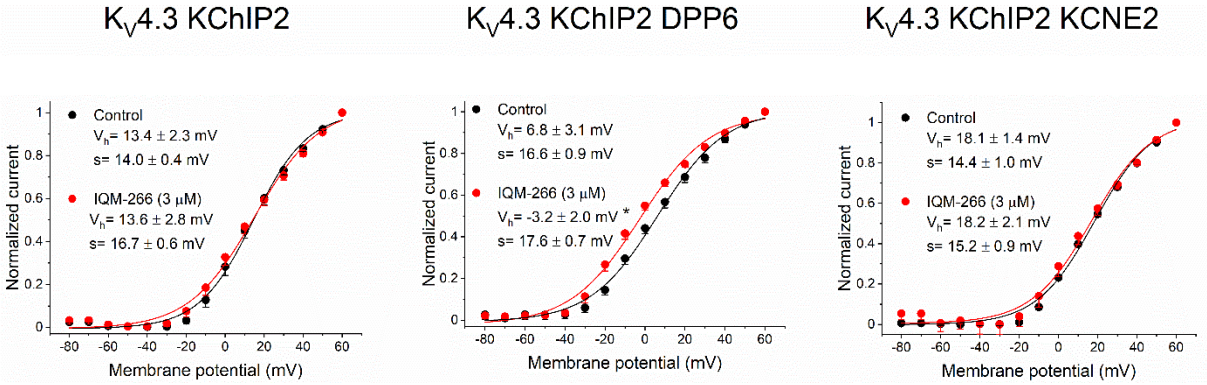


Supplementary Figure S1. Concentration-block of K_V4.3/KChIP2, K_V4.3/KChIP2/DPP6 and K_V4.3/KChIP2/KCNE2 channels induced by IQM-266. Each point represents the mean ± S.E.M. of, at least, 5 experiments.



Supplementary Figure S2. Effects of IQM-266 (3 µM) on the activation curves obtained from the current-voltage relationships in the absence and in the presence of the compound (see Methods section) on K$_V$4.3/KChIP2 (n=9), K$_V$4.3/KChIP2/DPP6 (n=8) and K$_V$4.3/KChIP2/KCNE2 (n=7) channels in the absence and in the presence of IQM-266 (3 µM). *:P<0.05.

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Author Contributions: A.B.B., P.G.S. and Y.G.M. conducted the electrophysiological experiments in CHO cells and analyzed electrophysiological data supervised by C.V.; P.C. and C.I. synthetized IQM-266 supervised by M.G-R.; M.D-M. prepared KChIP2 protein supervised by A.A.; I.M-O. and A.P-L. performed tryptophan FRET experiments. A.P-L., J.A.G-V. and A.O. designed and supervised the binding experiments and analyzed data. M.M-M. conducted the computational studies. C.D. performed the electrophysiological experiments in mouse ventricular cardiomyocytes. A.B.B. and P.G.S. performed statistical analyses, generated the final figures and contributed to the manuscript writing. C.D., M.M-M., A.A., A.P-L., J.A.G-V. and A.O. contributed to the manuscript writing. M.G-R. and C.V. conceived the project, analyzed data, supervised the whole project and wrote the manuscript. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest: The authors declare no conflicts of interest.

Data Availability Statement: The data supporting the findings of this study are available from the corresponding authors upon reasonable request. Some data may not be made available because of privacy or ethical restrictions.