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SUPPLEMENTARY DATA

Functional evolution of scorpion venom peptides with an inhibitor cystine knot fold

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MCa|1C6W      -GDCLPHLKLCKENKDCCKSKKCKRRGTNIEKRCR
KrICK         AVGCL-HSGRCKHDNDCCSKVCRFTSTGGDFFCG
HoICK-D       -GECLPAGASC SADADCCSAVCSGRGKN--KSCQ
  
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Figure S1 Target-template sequence alignment for structural modelling

Identical residues and conservative substitutions between targets and the template are shadowed in yellow and grey, respectively. Six conserved cysteines are boxed in red.

Table S1 Primers used in the present study

Note: R = A or G.

Name	Sequence	Usage
MeuICK-F1	5'-ATGARTACTTTTTRTCGTAGTC-3'	3' RACE
MeuICK-F2	5'-TCTCACAGCTATTTTATGCCA-3'	Genomic amplification
MeuICK-R	5'-CCAGTGCTGATGCATCTCTACCGT-3'	5' RACE; genomic amplification
3AP	5'-CTGATCTAGAGGTACCGATCC-3'	3' RACE
dG	5'-ATGAATTCGGGGGGGGGGGGG-3'	5' RACE

Table S2 The expression of K⁺ channel cDNAs in *Xenopus oocytes*

Clone	Vector	Restriction endonuclease	Promoter
rK _v 1.1	pGEM	Sal I	T7
rK _v 1.2	pGEM	Sal I	T7
rK _v 1.3	pGEM	Sal I	T7
rK _v 1.4	pGEM	Stu I	T7
Shaker IR	pBluescript	Eco RI	T7
rNa _v 1.1	pLCT1	Not I	T7
rNa _v 1.2	pLCT1	Not I	T7
rNa _v 1.4	pBS SK+	Not I	T7
rNa _v 1.5	pSP64T	Ase I	SP6
mNa _v 1.6	pLCT1	Not I	T7

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