Supporting Information

Effect of Wilforine on the Calcium Signaling Pathway in *Mythimna separata* Walker Myocytes Using the Calcium Imaging Technique

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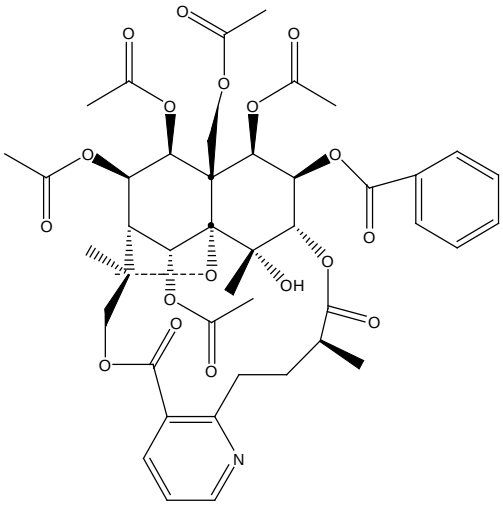

Figure S1. Structure of wilforine

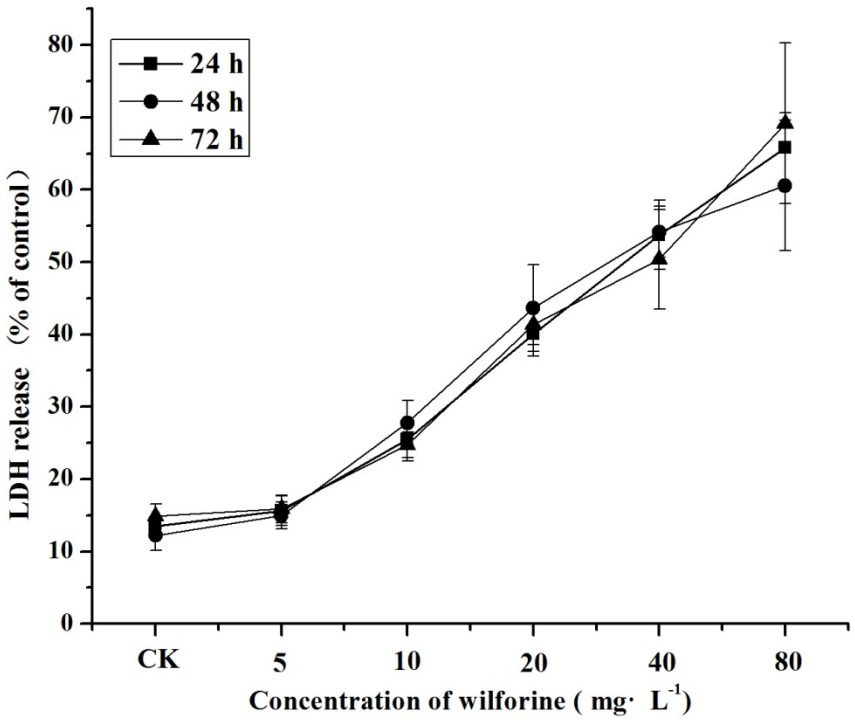

Figure S2. Effect of wilforine on the release rate of LDH of myocyte.

Table S1 Comparative study of wilforine (100 nmol/L) on $[Ca^{2+}]_i$ in *M. separata* adult myocytes in the presence or absent of extracellular calcium

Treatment	Relative fluorescence intensity FI（F/F0）/100%					
	0~300 s	305~400 s	405~500 s	505~600 s	605~700 s	705~800 s
Control	100.09±0.23a	99.85±0.34b	100.72±0.29b	100.78±0.45b	100.45±0.39b	100.89±0.46b
Present of Ca^{2+}+ wilforine	100.23±0.14a	108.04±1.45a	120.01±2.02a	112.32±0.87a	110.41±0.54a	110.82±0.63a
Absent of Ca^{2+}+ wilforine	100.28±0.27a	107.95±0.87a	118.06±1.24a	110.06±0.94a	109.09±0.43a	111.17±0.47a

Table S2 Comparative study of wilforine (100 μmol/L) on $[Ca^{2+}]_i$ in *M. separata* adult myocytes in the presence or absent of extracellular calcium

Treatment	Relative fluorescence intensity FI（F/F0）/%					
	0~300 s	305~400 s	405~500 s	505~600 s	605~700 s	705~800 s
Control	100.09±0.23a	100.13±0.24a	100.47±0.38a	100.57±0.27a	100.69±0.54a	100.68±0.52a
Present of Ca^{2+}+ wilforine	100.49±0.29a	99.47±1.04a	95.88±1.01b	90.52±1.93b	88.43±0.65b	81.93±1.23b
Absent of Ca^{2+}+ wilforine	100.32±0.09a	100.19±1.12a	95.51±0.78b	93.39±1.82b	89.17±0.78b	82.44±1.47b

Table S3 Effects of wilforine and Ryanodine on RyRs in the absent of extracellular calcium

Treatment	FI（F/F0）/%	Treatment	FI（F/F0）/%
Control	99.84±0.42a	Control	100.34±0.57b
Ryanodine	41.23±3.08b	Wilforine	110.67±1.42a
Ryanodine+Wilforine	24.78±1.65c	Wilforine+Ryanodine	109.87±1.05a

Table S4 Effects of caffeine and wilforine on RyRs in the absent of extracellular calcium

Treatment	FI（F/F0）/%	Treatment	FI（F/F0）/%
Control	99.34±1.07c	Control	101.24±0.58c
Caffeine	132.12±2.02b	Wilforine	124.74±2.43b
Caffeine+Wilforine	143.07±2.15a	Wilforine+Caffeine	138.87±3.09a

Table S5 Effects of wilforine and 2-APB on $[Ca^{2+}]_i$ in *M. separata* adult myocytes

Treatment	Relative fluorescence intensity FI（F/F0）/%					
	0~120 s	125~220 s	225~320 s	325~420 s	425~520 s	525~600 s
Control	100.56±0.46a	100.78±0.65c	99.78±0.56c	100.70±0.72c	99.69±0.81c	100.34±0.65c
wilforine	100.76±0.56a	113.12±2.24a	111.85±2.11a	110.14±1.34a	111.50±0.56a	110.95±0.52a
2-APB+wilforine	100.23±0.48a	107.16±1.45b	106.08±0.67b	105.67±1.23b	105.75±0.43b	105.88±1.05b